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Original Lectures.

ARTICLE I.

ON THE MASTURBATION, SPERMATORRHŒA AND IMPOTENCE OF ADOLESCENCE. A lecture delivered at Rush Medical College, April 10, 1879, by JAMES NEVINS HYDE.

GENTLEMEN:—Few disorders occasion greater mental distress to the patient than those, real or fancied, which are referred to the male organs of generation. Few also present more perplexing problems to the consideration of the physician. So intimate is the relation between the brain and the sexual organs, that a mere impression upon the eye, or an emotion, is sufficient in many men to produce turgescence of the penis. In case, therefore, of a real or fancied disease of these parts, the trouble is largely originated, aggravated or corrected by the mental condition.

It is especially with this important fact in view, that I desire to-day to consider those aberrations of adolescence, which are betrayed in masturbation and the conditions commonly described as spermatorrhœa and impotence.

The subject is a momentous one, and has naturally not failed of

due consideration by competent authors. Still it has been neglected or lightly treated by many writers, for the reason, it may be supposed, that the theme has been especially chosen for the exploitations of the unscrupulous charlatans, whose ignorant and pretentious pamphlets are written and circulated for the purpose of enriching their authors at the expense of the timid. Again, our medical periodical literature, of late years especially, has been concerned chiefly with the medical and surgical treatment of cases of this class. But the necessary and useful measures suggested, seem to me to bear no comparison in importance with what may be called the rational treatment of the mental condition of these patients.

The period of pubescence in the male, no less than in the female, is attended with marked and significant phenomena. In the case of many young men it lapses without producing physical disturbance, as some children escape dentition without serious annoyance. With other youths it is different. Ignorant of the physiology of the sexual organs, or instructed only from the lips of their misinformed companions, the light which they can throw upon the subject is usually of a very distorted and discolored quality. In the midst of the social surroundings of the present day, it cannot be questioned that there is frequently a precocious awakening of the sexual instinct. Whether, however, that awakening be precocious, tardy or timely, it is tolerably sure to make itself known. The genitals become physiologically congested, the seminal vesicles distended with their contents, the testicles turgid, and the erections of the penis, habitual with every healthy lad, become less frequently the reflex evidence of a full bladder or a distended bowel, and more often the sign and symptom of a true sexual impulse. Every one knows that these are the natural preparations for the reproduction of the race.

Now if it were possible to seize this moment in each instance, it would be a wise and timely course to then instruct the boy with regard to his awakening powers. He should be told that every healthy man has sexual instincts, that no man need be ashamed of such instincts; that he only need feel ashamed of such instincts who permits them to control him or to entice him into depraved practices; that, properly controlled, his desires will

eventually be the source of an actual benefit to him in mind and body; and that, if improperly controlled, they may produce a great deal of wretchedness and misery.

Unfortunately, such a course is rarely possible. In a certain proportion of cases, masturbation is begun either under the teachings of others of his own age, or solely from the promptings of the period of his life.

Certainly at this day, it is unnecessary to repeat that the sequence of events we have considered, is often precipitated by the physical conformation of the lad. I have heretofore dwelt upon the fact, that a congenitally tight or redundant prepuce may lie at the foundation of a large proportion of these cases. If the mucous surface of the glans be kept in an exquisitely sensitive state by its tight envelope, if it be further irritated by an imprisoned smegma, it can be well understood how the manipulation of the parts in the act of preparing to urinate, and even the accidental contacts of the sled, the back of a pony, the tree up which he climbs, and even the bedclothing at night, are capable of awakening in the boy at once a revelation and a revolution. Every father should be advised to see that his son has a fair chance in the struggle of life, where the fittest survive, guaranteeing to him a free prepuce, and a clean glans. None the less, should it be certain that a hernia is properly supported, a varicocele attended to, and a tendency to prolapse of the rectum relieved. These and possibly a few other morbid conditions are capable of doing mischief in consequence of the reflex irritation they occasion.

Now it happens in a large number of cases, that these young masturbators sooner or later become alarmed at their practices, in consequence of some information they receive. Often this latter is of a most mischievous character. Occasionally too, the religious element is predominant, and the mental condition of these young men becomes truly pitiable, even when at intervals, impelled by a misguided passion, they continue to handle themselves. Some are overcome and entirely unmanned by the "sins" they have committed, and curse themselves bitterly in their moments of depression. Others believe that they have accomplished the ruin of body and soul, and are already condemned for their misdeeds, to a life

of misery in this world, and a future of despair in the next. This is no overdrawn picture. I have received letters on this subject, that are eloquent enough to excite the sympathy of the most unimpressible; and am satisfied that a certain small proportion of unexplained suicides, are the result of this mental strain. A full and free confession to one who is wiser than they in these matters, is of immense value to these unfortunates. There is a burst of sobs and tears; and the whole trouble is often over after they have received some sound information and advice.

The facts are nearly these: Masturbation is not a crime nor a sin, but a vice. They who make confession with promise of reform, should be kindly told the truth about it. Though a vice merely, it is nevertheless a very filthy and disgusting vice, and should be classed with such degrading habits as picking the nose and scratching the anus. The very worst that masturbation does for the immense majority of those who practice it, is the loss of self respect it occasions, and the despondent mental condition it often brings to those who become morbid with respect to its injurious consequences. The best thing to say to these patients is to assure them that they have already reaped the fruit of their folly in their misery; that no possible evil consequences will follow in the future so long as they amend; and that the best way to treat the habit of masturbation is to abandon and forget it, as they would any other nastiness.

I say that no evil consequences will follow, for such certainly is the experience of the best authors upon the subject. Sir James Paget remarks, in his clinical lecture upon Sexual Hypochondriasis: "I believe you may teach positively that masturbation does neither more nor less harm than sexual intercourse practiced with the same frequency in the same conditions of general health and age and circumstances."* This admirable essay is classical in the field which we are now surveying, and I know of no other upon the same subject of equal value. The author goes on to show that when there is mischief, it results rather from the quantity than the method of the excesses; and that he had never seen nor heard anything which would lead him to believe that the ef-

* Clinical lectures and essays, London. Longmans, Green & Co., 1875, p. 284.

fects of occasional masturbation were different from those of intercourse, or that there was any justification for the special dread with which many sexual hypochondriacs regard it.

Dr. G. M. Beard pertinently remarks* that the genital organs were designed to bear a vast amount of abuse without permanent injury, and, respecting the relative harmfulness of the natural and unnatural methods of excitation, he thinks masturbation is worse simply because it can be practiced earlier in life, also at any time when alone, and therefore more frequently. Dr. H. C. Wood† expresses his belief as follows: "Some persons think that masturbation is more injurious in its effects than excessive venery. I do not believe this."

My own convictions upon this point are positive. During a part of my professional career I was the surgeon of a man-of-war, and had the opportunity of carefully observing and treating for long periods of time, hundreds of men, varying in age from that of the messenger-boy to the veteran of the top, some of them from the lowest and worst ranks of life, living between the decks of a vessel, completely cut off from the companionship of females for months at a time, many of them indulging their appetites without restraint in more than one unnatural manner. Since the years of the war, I have had the opportunity of carefully watching a large number of men of another class — those who, possessed of means and opportunities, have indulged in excessive sexual intercourse, both within and without the pale of matrimony. There cannot be a question but that the last named have been by far the worse sufferers. Miserable as must be the unnatural gratification of the appetite, we must admit that excesses of a natural sort are worse in their remote consequences.

For, let it be noted, that in the immense majority of cases, even after years of indulgence, sooner or later masturbators abandon their habit. Fear, courage, marriage, the wider knowledge and self-restraint that come with years—these, and a host of other influences operate finally with most men to end their trouble. They became husbands and fathers, and it may be presumed, their lives are the sweeter for the conflict they have sus-

* Proceedings of the Medical Society of the County of Kings, April, 1878.

† Clinical Lectures, Phil. Medical and Surgical Reporter, Dec. 22, 1877; p. 481.

tained. Our countryman, Hawthorne, has drawn a true picture of this conflict, in his criticism of the famous painting by Guido, in the Church of the Cappuccini, in Rome, representing Michael, poised in the flush and triumph of victory, with one foot upon the neck of the prostrate demon. Not even an archangel, writes Hawthorne, could escape from such a struggle with unruffled feathers.

Naturally enough, soon after he abandons his practices, the young man will notice that he has nocturnal discharges of semen, sometimes with, sometimes without dream or erection. If he were anxious when he had not abandoned the habit, his anxiety is now increased ten-fold. He peruses some wretched pamphlet on "Lost Manhood," only to find there his worst fears confirmed. He has sowed the wind, surely he is now to reap the whirlwind. Very probably, too, the extrusion at intervals of a mass of hardened fæces from the rectum, has squeezed a small quantity of the prostatic fluid from his urethra, which is to him conclusive evidence that he is the victim of "spermatorrhœa." If he can find also a few shreds of mucus from the prostatic urethra in the urine, or can discern, after any occurrences of a kind calculated to stimulate the genitals, a transparent fluid escaping from the urethra, the cup of his misery is nearly full.

But what are the facts? The young man who has masturbated has probably succeeded in simply awakening and developing prematurely his sexual powers. If he had never masturbated, the chances are that, sooner or later, he would have observed that he had nocturnal discharges. I never knew of a chaste celibate leading a sedentary life, who did not at times, during the years of sexual power, have similar annoyances. The passage from the urethra of a small quantity of prostatic fluid or the secretion of Cowper's glands, either during expulsive straining at stool or, obviously as a preparatory lubrication, after stimulation of various kinds, is common enough.

None of these is a symptom of disease—certainly not of true spermatorrhœa. Perhaps it would be well to declare to you here and now the fact of the great rarity of true spermatorrhœa. I feel quite sure that more young men suffer annually from hydrophobia and the stroke of lightning, than from this bugbear of

timid and nervous youths, and yet the mass of mankind spend their days without apprehension of mad dogs or thunder storms.

True spermatorrhœa is a disease rather of middle life and advanced years. It is significant, generally, of a grave disorder of the spinal medulla. An unprovoked discharge of semen in the daytime is far more rare than four-leaved clover. Even the nocturnal discharges of youth are largely made up of the liquor prostatæ.

Fluids of this character are secreted to be excreted. The mistake of many lies in assuming that they are secreted to be stored for use at some future crisis. But the testis is for secretion, and there is no storeroom of the genitals larger than the seminal vesicle. A seminal vesicle distends with its contents only that it may be relieved of them. It is probable that in a state of celibacy, a certain number of nocturnal discharges each month are positively beneficial. For a day or two days after this event there may be an unusual degree of languor and a sense of fatigue, but the tone of the system is afterward rapidly restored.

The analogy in the female is very perfect. The periodical emissions from the unimpregnated uterus. correspond very fully with the periodical discharges from the prostate, which is conceded to be the uterine analogue. In each case, the discharge may or may not be associated with the ejection of spermatozoa or ova. It is strange that young women, often those hysterically inclined, who have once experienced the alarm of a first menstruation, can regard thereafter with composure a periodical occurrence, the like of which, in the case of the young man, may become to him the source of a profound dejection. Nor does the analogy between the two cease at puberty. It is when nearing the period of the menopause that we look in women for that sub-peritoneal, sub-mucous or interstitial uterine fibroid development which in men of fifty or sixty years of age is represented in prostatic hypertrophy and interstitial or polypoid tumors of precisely analogous texture.

But, it may be objected, there is no marked periodicity in the expulsive function of the prostate. This is unquestionably an error. A periodicity certainly exists, though it may be, and often is, masked by the stimuli of the imagination and of modern

social life in large cities. Married men have often admitted to me the fact that, at certain periods of the month, they were very much more disposed to sexual indulgence than at others, and have been immensely surprised to learn that in this particular they were by no means singular. The same thing is probably true of the unmarried youth who is not unduly stimulated. There are periods in the month when the prostate is more disposed to functional activity than at others. Hence it is that, at times, a young man will have discharges several times during the same night, or even several nights in succession. The fact is to him portentously alarming; and might be indeed, if such a state of affairs were permanent. But such a state of affairs never is permanent. Nature is more conservative than the apprehensions of puberty. There is a prostatic no less than a uterine ebb; and these periods of prostatic activity will be succeeded by periods of prostatic repose, if only the youth will dismiss his anxieties and fears, and suffer his generative organs to repose, where they were intended to repose, under the shadow of the laws which govern the involuntary or, as Bichât calls it, the vegetative half of his organism.

But, unless instructed, he will rarely do this. He approaches his physician with complaints that have the exact flavor of the advertisements of irresponsible men in the daily newspapers, and the effect would be ludicrous were the complainant not seriously alarmed about himself. He is afraid of insanity. But the truth is that only a very small number of persons who live in apprehension of insanity, ever become insane. The one characteristic of insidious cerebral disease is the unconsciousness of the patient that he is losing, or has lost, his mental equipoise. The man of whom the skilled physician becomes suspicious, is he who thinks it necessary to insist upon his sanity. Many insane males masturbate, and I have seen insane patients with singular delusions respecting the subject of their masturbation and their sexual organs, but these are assuredly the results rather than the causes of the mental derangement.

The young man whose case we are considering, will often complain also that he is losing his memory, and that he sees "spots dancing before his eyes." But the power of memory is the re-

sult largely of education. The memory of many insane patients is in the highest degree excellent, and some of the healthiest and most intelligent men whom you ever meet, are so deficient in memory and absent-minded, that they are the laughing stock of their acquaintances. Every physician knows furthermore that slight corneal opacities, floating particles in the humors of the eye, and even retinal derangements, may produce images of spots—the muscæ volitantes of writers—which are consistent with perfect health.

I have said that the sedentary life of the youth in our large cities, is responsible for a great share of this sexual hypochondriasis. Hundreds of thousands of young men in this land were tormented in a similar way eighteen years ago, when the turmoil of civil war first agitated the country. They abandoned their sedentary lives, entered camp, lived on the coarsest fare, struggled with musket and knapsack over their long marches, and sank down wearily at night, often on the bare ground, into the most blessed and dreamless repose. To their astonishment they forgot, because they were compelled to forget, their sexual complaints. In this way the great war proved a blessing to whole regiments of young men.

But the last and sorest complaint of the youths of this class, is that they are "impotent." The question of matrimony is presented to them finally, and they recoil before it as before a plunge into a cold bath. Many of them will say that they have tested themselves, and found that they were utterly incapable of effecting intercourse. Upon the slightest contact with the female genitals they have, they report, a seminal discharge, even before the possibility of the occurrence of an erection. Or, if an erection has occurred, it was so feeble and transitory, that almost immediately after the intromission of the organ, the ejaculation was accomplished. Perhaps they will confess that they were rallied or reproached by their companion for their failure, and that they have been brooding over this misfortune till the burden has become will nigh intolerable.

Now this question is one of importance. The great, the pressing need of many of these young gentlemen, is a proper sexual hygiene. They need physiological rest of the sexual organs, not

absolute rest. Absolute rest is the doom of the Oriental eunuch. Physiological rest is the boon of regular and temperate gratification of desire. A promise of this rest is held out by marriage; and that proffered by any illegitimate relation, is pregnant with disaster and danger. How can we ensure for them this physiological rest, and in what cases can we advise marriage with confidence?

It seems to me that there is great and general misunderstanding about this entire question of virility. 'Tis a shame that such an honest word should come to have its splendid quality apply only to that baser office in man, which he shares with his first cousins of the brute creation.

The sexual act is by no means the supreme expression of manhood. Celibacy in both sexes is compatible with the attainment of the highest types of physical excellence. I have not the time, nor is this the place, for a digression in which to describe those nobler gifts of a true virility which have, in all ages, distinguished the best and worthiest of our sex. We must be content with pointing to the fact that the idiot, the imbecile, the consumptive, the syphilitic and even the paralytic of the male sex, have again and again reproduced their kind, and are to-day burdening every commonwealth with the care of their ill-begotten offspring. But to the youth who is inflamed with passion, the act assumes an immense and undeserved significance. The whole heavens are brass till his ardor is quenched. Well were it for him and for those like him, if they could express the sentiments of that rare and wise physician Sir Thomas Browne:

"I could be content that we might procreate like trees, without conjunction, or that there were any way to perpetuate the world without this trivial and vulgar way of coition; it is the foolishest act a wise man ever commits in all his life; nor is there anything that will more deject his cooled imagination, when he shall consider what an odd and unworthy piece of folly he hath committed."*

Turgescence, erection, and intromission of the male organ are not essential to procreation. The one requisite is the supply of the

* Relig. Medici, Ticknor and Fields, Boston, 1862, p. 137.

male element; and true aspermatism, when double epididymitis has not preceded, is rare indeed. It is at times merely necessary that the spermatic fluid should be applied over the external genitalia of the female, to insure impregnation. Even when there is diurnal ovulation, as in the fowl, the application of the ano-genital orifice of the cock to the corresponding part of the hen, will insure fertility. The records of medicine are full of illustrations of the fact that an impenetrable hymen, spasm of the sphincter vaginæ, and even amputation of the penis, constitute no bar to pregnancy.

But the young man who pronounces himself "impotent," need not be dismissed to this category in the list of generators.

Unquestionably men differ in their sexual powers just as they differ in the shape of their noses or the length of their ears. There are those of such unusual vigor that they can perform the prodigious feats of which Trousseau writes in his Clinical Lectures. Such men are capable of committing rape at will upon an indefinite number of women, and it would seem that the males of certain tribes of our North American Indians possess a power of this kind. At the other extreme we find the men of a nervous and peculiarly emotional type. By these the sexual act can be performed only with those women to whom they are peculiarly susceptible. For all others they might be called impotent. A mental emotion, a word, the sight of an offensive object, the recollection of a disagreeable occurrence, instantly renders them temporarily incapable of action, even in the presence of those with whom they have sustained relations.

Between these two extremes are to be found the mass of men—among them the nervous and despairing youths who have been for long bemoaning their lost manhood. For them, a certain degree of education is requisite before the act can be properly accomplished. In their illicit approaches to women, the very novelty of their situation has unhorsed them. Unaccustomed to the act, the person, the organs, stimulated in the highest degree by anticipation of what is to follow, their seminal vesicles usually distended to the utmost with a secretion perhaps long pent-up, the prostate lies ready on the instant to discharge its burden.

The wonder is, not that they fail in such intercourse, but that they should, as they sometimes do, succeed.

Now the married state offers just the proper school for an education of this sort, and it should be recommended with confidence to every man who is capable of supporting a wife and family; who is capable of secreting and ejecting semen from the external meatus of his urethra, and who, once or twice in the week or month, arises from sleep to find his penis in a state of vigorous erection. Such a man will plead that he is sure to fail, and the proper response should be always—

"Of course you will fail. A very considerable proportion of bridegrooms fail in their first marital approaches, and you cannot expect to escape such a common lot. You will fail the first time and the second time, and possibly many times more for a few weeks. But what of it? The failure will prove, in all probability, to be a mutual one. If you have married an innocent and virtuous as well as an affectionate girl, and you ought to marry no other, she will be as ignorant of these matters as I am confident you are. The difficulties which beset your way in this direction, will none the less beset hers. And so you will go on, both of you, correcting mistake after mistake, and error after error, till the undue excitement and the novelty of the situation shall have worn away. Then will arrive a supreme moment when the act will be perfectly consummated; and so long thereafter as you are true to the one woman with whom you cohabit, your resources will never fail. The whole burden of your sexual trouble will be lifted away from your life like a dark cloud, and with it you will do well to drive away from your memory the recollection of the filth and nastiness which unfortunately pollute too often the springs of a normal adolescence."

A man, married six months or more, may give a history of masturbation and nocturnal emissions before marriage, and also complain that, since then, he has been totally unable to perform the sexual act properly. But the number of those men, in whom no positive and present cause of their trouble can be detected, is so small as to be insignificant. I remember the case of a gentleman who gave a history of this kind, and who positively declared that, during the five years of his married life his erections had

always been imperfect, and intromission instantly succeeded by ejaculation. He was well nourished, happy in his domestic relations, and not in the least worried about his condition. He had a healthy child, whose existence, he said, was a standing surprise to him. He complained of other symptoms, and for these I explored his urethra. I found a tight stricture one inch from the meatus. This I divided. During the subsequent treatment his wife conceived a second time, and he told me that he had effected natural intercourse at the date of this conception.

It may be said, in general, that the married men who complain of "impotency" are almost invariably those in whom this condition has succeeded to the previous enjoyment of their powers. But these do not belong to the class of adolescents, whom we are now describing.

I would not have you infer from what I have said, that medical and surgical treatment is not needed by many of these complainants. It is indeed essential to the judicious management of a certain proportion of cases, and I will endeavor to treat this part of the subject in a future lecture, deferring to that time a consideration of the effect upon the genital organs of the habitual use of tobacco, alcoholic stimulants, and opium.

DERMATOPHONY.—Prof. Hueter of Griefswold, has shown that we can hear with the microphone the rush of blood through the capillaries of the skin (dermatophony), the sounds of muscular contraction (myophony), of tendinous extension (tendophony), and of the vibration of long bones when percussed (osteophony.)

As the microphone is, in general, not easy of application to the skin of the body, Prof. Hueter has invented a special instrument or dermatophone, consisting of a flexible stethoscope with a thin caoutchouc membrane stretched over the end applied to the skin, and a perforated horn plug to fit and close the ear perfectly. With this instrument he has clearly proved that the capillary murmur is most clearly heard where the circulation is most vigorous. In acute inflammation of the skin, with marked inflammatory hyperæmia, the murmur is louder but deeper in tone than the normal state.—*Times and Gazette, Feb.* 15, 1879.

Original Communications.

ARTICLE II.

CYSTS OF THE BROAD LIGAMENT OF THE UTERUS. Notes of Three Cases by R. STANSBURY SUTTON, A.M., M.D., of Pittsburgh, Pa.

During the last few years I have met with three cases of cysts in the broad ligament. These cases all differed from one another in these particulars: Case I, the cyst was very large, and had frequently been tapped; Case II, the cyst was of medium size and had never before been diagnosed; Case III, the cysts were concentric, multiple and small, and, so far as my experience goes, the case is unique. Before relating these cases, I may be pardoned for making a few remarks upon the subject in general. Dr. Charles Clay seems to have been the earliest observer of these larger cysts. The general pathologist says very little about them, and as is remarked by Dr. Peaslee, the "ovariotomists in this country and in England" are those who have recognized them. Prior to 1850 Dr. Clay seems to have been about the only one who spoke of them. Now that ovariotomy is an established operation, we may expect to learn more of these cysts, which will be met with, whether we will it or not. Two of the cases I am about to report, may be put under the head of "large serous cysts of the broad ligament;" they are of slow growth and affect the general health very slowly. We are taught that after tapping they rarely fill again. In this particular my cases are at variance with the rule, as will be seen, but out of 40 cases Dr. Charles Clay cured 34 with the trocar, therefore two cases taken alone mean nothing; but if some one, collating such cases, will add these two to his number, that statistics may, after

a while, be made up, for our own country, I will feel amply repaid for my efforts to place these cases within his reach.

Case I.—Miss Frances Husack, a resident of Pittsburgh, aged 21 years, presented herself at my office July 7, 1876. Her parents were Bohemians. She was born in Pennsylvania and had, living and well, two sisters and three brothers. Until five years ago, or up to her 16th year, her health was excellent. She menstruated for the first time at 14. At 16 she became irregular, and observed, about this time, an increase in the size of her abdomen. A year after this she was tapped by Dr. John Dickson, and eight liters of clear fluid were removed. She describes the fluid as having been "clear as well water." Thirteen months later she was tapped again by the late Dr. A. G. Walter, and ten (10) liters of similar fluid were removed. Eight months later she was tapped again by Dr. Walter, and 12 liters of similar fluid were removed. On the 10th of August, 1875, she was subjected to the fourth tapping, this time by Dr. Duff; 16 liters of clear fluid were removed. It is therefore scarcely a year to-day since she was tapped. She reports a good appetite, daily action of the bowels, and the ability to sleep well.

Measurements.

Around the body at the umbilicus	106	Cm.
From ensiform cartilage to the umbilicus	23	"
From pubis to the umbilicus	27	"
From R't super. spinous process of ilium to umbilicus,	26½	"
From L't " " " " " "	27	"
Around the body, 5 Cm. above the umbilicus	104	"

Fluctuation is very distinct over the entire swelling. Change of position does not alter the boundaries of fluctuation. The abdominal walls glide readily under the hand over the anterior and lateral aspect of the growth. The epigastric veins are slightly enlarged. The umbilicus is level with the general surface. The patient is considerably emaciated. The expression of countenance is not decidedly ovarian. The uterus is retroverted, and measures in depth 8½ Cm. The following facts gained in this examination may be tabulated:

1. The patient is young, viz., 21.

2. The growth has not been rapid.

3. The tumor is large, but the general health tolerably good.

4. The abdominal veins are less enlarged than usual in great abdominal distensions.

5. Fluctuation is very distinct and continuous over the entire growth.

6. The expression of countenance is not decidedly ovarian.

July 31 (24 days since first examination), I introduced a large aspirator needle into the cyst, and through it withdrew 17 liters of fluid literally as "clear as well water." This fluid possessed high refractive power, contained no albumen, but did contain chloride of sodium. Its specific gravity was 1008. It was very apparent that the cyst was one of the broad ligament. At this tapping the cyst was not emptied, but considerable fluid was intentionally left in it. I ordered tincture ferri chloridi 1 Gm. 35 centigrams, *ter die*, and good diet. Also lithia citrate, 35 centigrams in a glass of water each morning before eating.

August 14.—At 10:30 a.m., Squibb's ether was administered by Dr. Giesking. Assisted by Dr. Rohauser, Dr. Purviance and Dr. Lemoyne, I proceeded to operate. An incision 10 Cm. long was carried through the abdominal wall in the line of the linea alba. The cyst, partially empty, was seized with a tenaculum and partly drawn through the incision. Fitch's trocar was now introduced, and the cyst rapidly emptied of 6 liters of fluid. It was now carefully drawn out, and found to be a cyst of the left broad ligament. Its pedicle was very short and very broad. The ovary adherent to the cyst was healthy. A needle, threaded with four strands of carbolized silk, was now carried through the pedicle about at its center. The needle was cut away and each half of the pedicle was firmly tied with two strands of the ligature. The pedicle was now severed $2\frac{1}{2}$ Cm. beyond the ligature, and the cyst removed. After sponging out the belly, the ligatures were cut off close to the knots and the pedicle dropped in. The wound in the abdominal wall was now closed with carbolized silk sutures and adhesive straps; a bandage being adjusted, the patient was put to bed; pulse 31. Pain being complained of, an injection of 1 centigram of morphia was given subcutaneously, a jug of hot water was placed at the feet, and milk and lime

water ordered to satisfy either thirst or hunger. At 10 p. m., temperature 38.4, pulse 41.2.

Aug. 15, 10 p.m.—Temperature 38.3, pulse 41.2. Removed two stitches from the wound.

Aug. 16, 10 p.m.—Temperature 37.9, pulse 40. Removed two stitches from the wound.

Aug. 17, 10 p.m.—Temperature 38.2, pulse 46.6. Removed the last stitch; wound closed.

Aug. 18, 10 p.m.—Temperature 38, pulse 42. Is eating well; ordered quinia sulphate 35 centigrams and tincture opii gtt. x per rectum daily as a tonic and to avoid tympany.

Aug. 19, 10 p.m.—Temperature 38.2, pulse 36.7. Taking also to-day a dessert spoonful of brandy at meal time.

Aug. 20, 10 p.m.—Temperature 37.5, pulse 37.8.

Aug. 21, 10 p.m.—Temperature 37.5, pulse 37.8. Complains of frequent desire to pass fæces, without any result. On passing a finger into the rectum, it was found packed. The pack was broken up, and with the aid of injections of soap suds the rectum was emptied of a large quantity of fæcal matter.

Aug. 22.—Temperature 37.3, pulse 28.9.

Aug. 24—Temperature 37, pulse 26.7. Sitting up in bed.

Aug. 30—Temperature 37, pulse 26.7. Sitting up, out of bed; appetite good.

Sept. 2.—Slight intercostal neuralgia; ordered a flannel jacket.

Sept. 3, .—Neuralgia gone.

Sept. 4.—Patient discharged.

During the first four days after the operation, the catheter was used every six hours by Dr. Rohauser, who lived but a few doors from the patient, and whom I retained in the case with me. At this date, May 25, 1878, this patient is now a healthy married woman.

Case II.—On the 17th of March, 1877, I was requested by my friend, Dr. Joseph Dickson, of this city, to see with him a Mrs. ——, from an adjoining county. She was a thin, tall woman of a highly nervous temperament. She was 34 years of age, had married at 15, and enjoyed fair health for about ten years afterwards. She had never borne children, which fact was possibly due to the existence, until recently, of a long, conical

cervix, with a narrow canal. Her menstruation had always been painful. She had consulted many physicians during the last nine years. Her symptoms were peculiar. She was painfully nervous and irritable. As she stood before us, she placed her hands upon the lateral walls of the abdomen, and by means of pressure, first on one side, then upon the other, produced a rumbling, bubbling noise in the intestines, which was a surprise to us both. Some time before, she said, the neck of the womb had protruded between the labia and had been amputed. Since the operation she had menstruated more comfortably, but her general nervous condition was no better, and she had threatened to destroy herself. We decided to carefully examine the abdominal and pelvic viscera. Percussion was first in order. Clear sounds were elicited all along the entire course of the colon, or more properly throughout the right inguinal, right lumbar, right hypogastric, epigastric, left hypogastric, left lumbar, and nearly all of the left inguinal and umbilical regions.

At a point 2½ Ctm. below the umbilicus, a dull sound was found; this dullness extended down to the pubes, and corresponded with the umbilical region in width, overlapping the line a little on the left side. Indistinct fluctuation was evident. The region occupied is that which a full bladder would fill. A catheter passed proved the bladder to be empty, and the catheter could be felt through the anterior wall of the vagina as high as the neck of the uterus. Two fingers passed into the vagina, and the other hand pressed down above the pubic symphysis, fairly caught the cyst, and gave a tolerably accurate idea of its size.

The uterus was pressed back upon the rectum, and measured 6 Ctm. with the sound. We concluded that the patient had a cyst either of the broad ligament or Fallopian tube, and I requested Dr. Dickson to aspirate it. The belly was in appearance perfectly normal.

Returning to the room in which the patient lay, Dr. Dickson thrust an aspirator needle into the cyst, and drew off 1 liter, 24 C. C. of clear fluid, of a low specific gravity, free from albumen but rich in chloride of sodium, and possessing high refractive power.

I left the patient to the Doctor, since which time I have not examined her. On inquiry, Dr. Dickson tells me that the cyst refilled, and he has tapped it once since. The nervous symptoms continue.

Case III.—On Dec. 7, 1877, I saw, in consultation with Dr. Thomas Mahon, of Allegheny City, Pa., Miss Lizzie M., aged 15 years, sent to him by Dr. Hughes, of Blairsville, Pa. Her face was that of one apparently much older. She had never menstruated. Eighteen months ago she was perfectly well. Soon after this date she observed her abdomen growing larger, and also suffered some pain in the left side. Six months later her abdomen had become very large. Passing along a pathway in the yard, *she fell over a water-bucket.* She was not apparently injured. The following day she observed *a change in her shape*, and the swelling of her abdomen *rapidly disappeared.* She says *no fluid* escaped by the *vagina.* About three months after this the abdomen again began to enlarge, and at the end of nine months, viz., in October, 1877, Dr. Hughes tapped her of many liters of fluid, greenish in color, thick and heavy. Two months later, viz., Dec. 2, 1877, he again tapped her of 19 liters 200 C. C. of similar fluid. Such is the history given by herself and her father, who accompanies her. It is, therefore, only five days since she was tapped. This fluid was not examined with the microscope. By palpation I detect considerable fluid in the belly at this time ; its presence is confirmed by gravity carrying it about on change of position, dullness on percussion locating it. But between two fingers in the vagina and the hand in the left inguinal region, I feel what I take for a cyst nearly empty ; it is soft and elastic. The upper hand detects a round body, which I suspect to be a solid body in it. The patient is so restless, however, that we desist. Relying upon the history and what we have found, we conclude that we have to deal with an ovarian cyst. Three weeks after this I met Dr. Hughes in Blairsville, and visited this patient with him. She was very large, and I wanted some of the fluid. Dr. Hughes tapped her of 9 liters 500 C. C., leaving a great deal in her. This fluid was greenish in color, sticky and heavy. It contained albumen. Specific gravity 1015. At this visit I did not *re-examine the case*—in my opinion, a

great mistake. I brought home a bottle of the fluid, and examined it with the microscope. It contained epithelium and a granular cell which I took to be the ovarian cell. I sent to each of two good microscopists in the city a specimen of the fluid. They were ignorant of the origin of the fluid. After examining it they pronounced it to be fluid from an ovarian cyst. This impartial and independent confirmation of our diagnosis put my mind at rest, and at the request of Drs. Hughes and Mahon I decided to remove the cyst when they considered the patient ready.

On the 15th of January, 1878, at the patient's home, I met Dr. Hughes and a number of medical gentlemen of Blairsville.

I made an opening in the linea alba 6 Ctm. long. No ovarian cyst was to be seen. An enormous quantity of fluid was removed from the belly. The small intestines were glued in a lump, and lay high up in the abdomen. The vessels of the peritoneum were congested; the ovaries and uterus were healthy, but between the layer of the left broad ligament there was something filling up the pelvis. I cleaned the fluid out of abdomen, announced a mistake in diagnosis, and closed the wound. Four days afterwards I received a postal from Dr. Hughes saying the patient was dead, and that he had removed at the post-mortem the uterus and ovaries.

Two days afterwards I examined the uterus, broad ligaments, etc., with Dr. Hughes and several of the physicians of Blairsville. The uterus and both ovaries were healthy, but between the layers of the left broad ligament there was a soft elastic mass as large as a California or Florida orange. The entire mass lay below or under the ovary and tube, and was covered by the serous layers of the broad ligament. Between the mass and the uterus there was $1\frac{1}{4}$ Cm. of the ligament unsplit by the mass. In the serous covering was found a small opening communicating with the mass; out of this opening oozed a glassy, amber colored fluid, when the specimen was pressed upon. The serous covering was now slit open, revealing a mass of hydatiform cysts, varying in size from a pea to a shell-bark hickory nut. Many of these cysts were concentric, their walls were transparent and exceedingly thin. The contents of the cysts was a fluid heavier

than water, in color resembling currant jelly. Microscopic examination failed to show any hooklets. The case was one of chronic peritonitis, complicated by this mass of cysts. Did this mass of cysts cause the peritonitis? On account of professional engagements, Dr. Mahon was not present at the operation.

ARTICLE III.

AN IMPROVED VARIX CLASP FOR THE RADICAL CURE OF VARICOCELE. By T. W. WILLIAMS, M.D., Milwaukee, Wis.

Of the Disease.—Varicocle, as is well known, depends upon an enlargement, or varicose condition of the veins which form a large part of the spermatic cord. It is sometimes situated on the right side, but generally on the left, owing, it has been stated, to the absence of a valve where the left vein enters the emulgent, which subjects it to greater pressure from the superincumbent column of blood. Whatever may be the cause, the fact is that the walls of these veins do give way, become relaxed, as it were, and distended, bulging out in places into little pouches, giving the vessel, when full of blood a knotty appearance. The whole vein, in old cases, is dilated, enlarged, tortuous, cordy and knotty. The disease is one very prevalent, and although it has been known to exist for years without any serious results, my observation has convinced me that these are exceptional cases, and that in the majority of instances the disease results in impotency and wasting of the testicle, and sooner or later impairs the general health by constant nervous irritation, inducing dyspepsia, dragging sensations in the groins, lumbago, or pain in the back, and a general depression of the system, despondency, gloomy forebodings, and hypochondria.

Of the Treatment.—We cannot, by any means known to medicine, restore these veins to their normal healthy condition; but we can do the next best thing, which is to occlude them, that is, cut off the circulation in them. The palliative treatment, which consists in cold bathing, counter irritants, and wearing a

suspensory bandage, seldom affords more than temporary relief. A permanent and radical cure is effected only by the occlusion of the veins. The barbarous practice of removing part of the scrotum, as recommended by Sir Astley Cooper; including the veins and half of the scrotum in a ligature; exposing the veins and tying them, wearing a lever truss, which was worse than useless, etc., etc., were formerly resorted to. Ricord was the first to improve on this treatment, by substituting the sub-cutaneous ligature. Dr. Gross still further simplified and improved the operation by using only one ligature. This operation for varicocele, although considered perfectly safe, and undoubtedly effective of a radical cure, is not without objection. To be performed by a competent surgeon, its cost (no small item to numerous patients), is considerable, while the loss of time, occasioned by the patient being confined to his room two or three weeks, is both painful and tedious. The operation by the ligature is also excruciatingly painful. "Pain is a great evil," as Dr. Gross says, and if we can accomplish the same end without it, we thereby gain a material advantage.

Many cases of varicocele are caused by a relaxed, pendulous condition of the scrotum, which does not support the testicles, but allows them to drag on the cord. In early stages of the disease, I sometimes perform an operation for retrenching the scrotum, by means of an *elastic ligature* which shortens it sufficiently to cause it to support and sustain the testicle. I have performed this operation several times with the best results. I have never seen the operation performed by any one else, and have never seen it described or recommended. I will, therefore, briefly describe my method of operating, which is very simple. I gather up sufficient of the relaxed scrotal tissue on the affected side to shorten the sac, so as to cause it to lift the testicle and support it sufficiently to prevent any tension of, or dragging on the cord. Around this superfluous portion I slip an elastic ligature sufficiently strong to compress it and arrest the circulation in the vessels of the part. I then pass a small needle, threaded with fine silver wire, through the occluded portion just *below* the ligature, and bring it through the scrotum again just *above* it, forming a tight loop around the ligature, secured by twisting the

ends of the wire together. I then leave it to cut through and slough off, which it does with very little swelling.

The operation is not attended by any considerable pain, and if it is performed in the early stages all further trouble is avoided. Even after the occlusion of the cord by the ligature or clasp, many patients are obliged to wear a suspensory, and the further operation of shortening of the scrotum is advisable; as also in relaxed conditions of the sac, even where no disease exists.

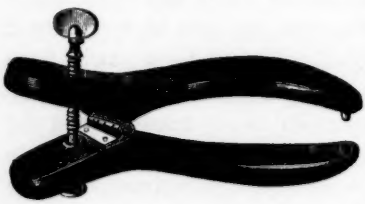
Operation with the Varix Clasp.—But the operation which I consider preferable to all others for the radical cure of varicocele, is that of occlusion of the diseased veins by means of an improved varix clasp of my own. I do not claim originality for this operation, and am aware that a similar operation was recommended many years ago, but by whom I have not the data at hand at this moment to say. I think an instrument for this purpose is figured in an old edition of Pancoast's Surgery, published from sixteen to twenty years ago. I do not think, however, the operation ever received much favor, and have never seen it referred to in any medical literature on the subject which has come under my own observation; and when I sent one of my instruments to Dr. S. D. Gross, some fifteen years ago, it seemed to strike him as a good idea, and he wrote me that he would try it upon the first favorable case which he should have; but I have never heard anything from him on the subject since.

The operation has been so successful in my hands during the last fifteen years, that I have concluded to bring it to the notice of the profession. I have had considerable experience with the affection during the last fifteen years, having operated upon about 200 cases with a successful result in 98 per cent. In no case has any fatality attended the operation, and in the three or four cases in which it has failed, I attribute the failure to the slipping of the cord. As the clasp was originally constructed, as shown in the engraving, the pin at the end of the blade was simply a blunt knob. Its object was to prevent the cord from slipping out of the blades upon the application of pressure by the thumb-screw. In the improved instrument, as now made by Messrs. Tiemann & Co., of 67 Chatham St., N. Y., this pin is made longer

and sharper, so as to pass *entirely through* the scrotum, thus effectually preventing this accident.

The clasp is made of hard rubber, beveled from the center of the blades outward; the blades are 5 Cm. long, from the point to the hinge, and are approximated by a thumb-screw. I consider the clasp a great improvement upon the old method of operating. It acts on the principle of the ligature, without the pain and inconvenience attending that operation. The result is the same as if a skillful ligation had been performed, and is obtained with much less pain and loss of time. It possesses other advantages which the ligature does not, viz.: the slight inflammation and ulceration of the external skin which it produces, causes the scrotum, which is always relaxed, to contract and become shortened; while it is perfectly free from the danger of inflammation and peritonitis, which sometimes follow the use of the ligature. Owing to the *rapidity of the cure*, and *freedom from internal suppuration*, the dangers and inconvenience of the ligature are avoided. The function of the testicle remains unimpaired, which is not always the case after other operations.

Mode of Applying the Clasp.—The application of the instrument is so simple and easy that the physician will have no difficulty in accomplishing it. The spermatic artery and vas deferens should not be included in the clasp, as our dealings are entirely with the veins. The artery and vas deferens can be easily distinguished by the touch when taken between the thumb and forefinger. They are united, and form one cord, which is about the size of a quill, and has a hard cordy feel, totally different from the soft vascular feel of the veins, and the pulsation of the artery can be distinguished as a rule. After separating the cord from the veins with the thumb and forefinger of the left hand, by pushing it over towards the other testicle, let the patient lie down so as to empty the veins (still keeping them separated), then apply the clasp so as to include and compress the veins about an inch



Dr. Williams' Varix Clasp, half its actual size.

above the testicle, turning the thumb-screw until the veins are completely strangulated. Should the blades of the clasp when closed leave too much room between them to compress the veins sufficiently, as may happen when the veins are thin, one or more thicknesses of chamois skin or rubber may be put between the blade and the skin. This is rarely necessary, however, as the blades of the clasp approach within one-sixteen of an inch of each other. The pin at the end of one blade passes *completely* through the scrotum, between the vas deferens and artery on one side and the enlarged veins on the other. This is necessary to prevent the veins from slipping out of the clasp when the pressure is applied. The pain of this operation is much slighter than one would suppose, and lasts only a few minutes, after which the parts compressed become deadened.

The After Treatment.—By leaving the clasp on five days the veins become clogged up with coagulated lymph, and are thus permanently closed, so that when the instrument is removed, the circulation is not re-established. The instrument usually causes more or less dull aching pain for a few hours, and the pressure on the external skin causes it to become sore, but it heals up in a short time after the removal of the clasp. The lower part of the vein, at the bottom of the scrotum, becomes more or less swollen and distended; the blood, however, is in time re-absorbed, and, if necessary, the swelling may be poulticed with ground flaxseed, or bread and milk, to hasten its departure, after the removal of the clasp. Four or five days is sufficient to effect a cure. A bandage of some kind should be worn to prevent the clothes rubbing the clasp off; and after its removal a suspensory bandage should be worn until all swelling and tenderness subside. The diet should be light, and the recumbent posture maintained as much as possible while wearing the clasp. The patient may, however, move about the room, and go down and up stairs to his meals or to the closet. In a month after removing the clasp, it can be seen whether the cure is perfect or not; in some cases, from various causes, it may be necessary to make a second application of the instrument; but this will be very rare, and then will be owing to the first application not including all the veins. A radical cure may be relied on in all cases.

The cut represents the varix clasp as originally made. The only alteration I have made in it, was to make it a little heavier and stronger, and have the pin so constructed as to pass entirely through the scrotum. They may be obtained from Messrs. Tiemann & Co., made after my own model. They are known as "Williams' Varix Clasps," but are not a *patented* or proprietary article.

ARTICLE IV.

A CASE OF EXTRA UTERINE PREGNANCY. Extract from a paper read before the Fox River Valley Medical Association, at Aurora, Ill., January 6, 1879. By ABNER HARD, M.D.

GENTLEMEN:—For presenting to your consideration the details of a case of extra uterine pregnancy which lately occurred in my practice, I think I need make no apology. It is an occurrence so rare that few country practitioners, and in fact few accoucheurs, have an opportunity to observe it.

Some years since, Doctor Allaire, a member of this society, had such an experience in his practice, where a German woman carried an extra-uterine fœtus. When the doctor was first summoned, there was a tumor in the side, whose sac inclosed fœtal bones, many of which were perfect, all the soft parts of the fœtus having been absorbed. The woman lived to have other children, and is living at this time, as we believe. The older members of the society will recollect the fact.

A case which came under the care of Drs. Winslow and Gillett, of this place, was diagnosticated as extra-uterine pregnancy, but, a post-mortem examination being refused them, they had no opportunity to verify their diagnosis. Believing so rare an occurrence should be put on record, I report my case.

Mrs. C., aged 36 years, had been married 16 years, but did not become pregnant until last spring. She was naturally very delicate, sensitive and nervous. On the 13th of June, 1878, I was called to see her, when suffering from uterine hæmorrhage. It was the time for her menses, but for several months she had

been irregular in that particular, and I looked upon this as menorrhagia, though she had some symptoms of pregnancy, which she could not believe existed, and her pain simulated that of abortion. This condition yielded to treatment, and in a few days she was up again. July 9th, I was again summoned to attend her, when she complained as before, but also had congestion of the lungs, and unusual and constant pain in the abdomen. Her sufferings were excruciating. Relief was obtained only by the use of strong anodynes. At this time I became satisfied she was pregnant, and feared placenta prævia and an abortion, which the patient was very desirous of avoiding. She recovered and was about the house until July 28th, when I was again called, and found great tenderness over the abdomen, considerable nausea and dyspepsia. Very little food could be tolerated. She could get no sleep lying, and had to be kept in a semi-recumbent position. Careful examination failed to throw any additional light upon the case. The fœtal heart could not be heard, but the other usual signs of pregnancy were present. From this time until her death she was unable to go about the house. As the abdomen enlarged, the difficulty of breathing became great. Every movement of the diaphragm in breathing gave pain, and coughing was very distressing. The motions of the fœtus were feeble, but gave great pain; and added to her discomfort was incontinence of urine. Every month she menstruated; sometimes the flow was small, but accompanied with unusual pain. This condition continued increasing in severity until (as we reckoned) about the sixth month of gestation, from which time she felt no motion of the fœtus, and she grew worse more rapidly. Although there was no general peritonitis, the abdomen was so tender she could hardly bear light bed-clothing, and every attempt at digital examination *per vaginam* was resisted as unbearable. During most of the time her mind was greatly disturbed, not being fully rational. About ten days before her death there was an offensive discharge from the vagina, the odor resembling decomposed animal matter. Believing the fœtus to be dead and decomposing, and that death would soon ensue unless relieved of the dead fœtus, assisted by Dr. L. A. Winslow, on the 18th of November we gave her ether and made an examination which

revealed the os uteri lying above the pubis and to the right of the median line, which could with difficulty be reached. She rallied from the effects of the examination and etherization, but continued to sink, and died Nov. 20th.

A post-mortem examination made seventeen hours after death, in presence of Drs. Robbins, Higgins, Grant, Murphy and Winslow, revealed a case of extra uterine pregnancy. The fœtus was plump and apparently well nourished up to the time of its death at about the sixth month. Decomposition had so far advanced that the skin came off very readily. Impregnation had taken place in the right ovary, from which the sac or membrane had grown which contained the child and secundines. Adhesions were very firm between the sac and peritoneum covering the intestines, and the wall of the sac was so fragile it was readily broken or torn by the finger. The liquor amnii was semi-sanguineous and offensive. The placenta was of natural size, partly decomposed and attached to the upper part of the sac. The uterus was small — not larger than a man's fist — and found lying above the pubis, to the right of the median line and in front of the fœtal envelope. Its mucous membrane was covered with a caseous or cheesy deposit about 0.2 Cm. in thickness, which was readily removed with the scalpel. The fallopian tubes appeared natural, the one leading to the right ovary being perfect its entire length, and as long as the left tube, showing, as I think, that this was a case of ovarian and not tubal pregnancy.

ARTICLE V.

THE CURE OF HÆMORRHOIDS BY THE HYPODERMIC SYRINGE.

By EDMUND ANDREWS, A.M., M.D., Prof. of Surgery in the Chicago Medical College.

In a former number of this journal, I published the secret method of certain itinerant "Pile Doctors," and asked for information from all physicians who had any knowledge of the practical results of the treatment. This request, supplemented by other inquiries, has brought me responses from about 300

physicians, and given me more or less knowledge of the results of over 3,300 cases treated by the new method. From the material thus collected I am able to present the following history:

In the year 1871, there lived in the village of Clinton, Ill., a physician named Mitchell. His practice being small, he employed his superabundant leisure in planning a new treatment for hæmorrhoids. He was a good thinker, and soon conceived the idea of charging a hypodermic syringe with equal parts of carbolic acid and olive oil, and injecting the contents into the hæmorrhoidal tumors. He also devised another and totally different plan, which was to take two large needles with triangular points, like those used by saddlers, and then to pick the piles to pieces little by little with the needles. Mitchell himself is said to prefer the needle operation, and several others have adopted it from him, but the plan of injections has proved by far the most popular with others, and has recruited, in a quiet way, a surprising number of operators. The secret was sold from man to man, and the price and enthusiasm rose simultaneously. "State and county rights" to practice it, were vended at high rates, reaching in one instance the sum of $3,000. Regular physicians abandoned their practice, and even mortgaged their property for money with which to buy the secret, and set themselves up as itinerants, while ignorant laymen joined in the rush until they filled the whole West with their clamor, and at last whitened the sands of the Pacific shores with their hand-bills.

The chief managers of the business settle in the larger towns in the winter, where they advertise and practice, but as Spring advances to the time when the wild geese begin to fly, they feel the migratory instinct, and go from place to place, selling the secret to all who will buy it, and operating meanwhile on the people of the farms and villages. In this way they have treated more than 10,000 patients in the States west of the Alleghany mountains. A secret so extensively sold, always gets out. Three years ago I discovered and published it, thus putting a check on the business of selling, and induced large numbers of the regular profession to try the plan among their patients. These physicians have furnished me my best infor-

mation, but I also opened communication with the principal itinerants themselves, and induced several of them to come out frankly and tell what they knew, and by checking one statement against another, was able to sift out pretty well the few attempts at deception.

Mitchell's original plans have excited widely extended thought and experimentation among his followers, so that his two methods have branched out into numerous varieties. The original injection seems to have consisted of equal parts of crystallized carbolic acid and olive oil. The operator exposes the piles to view, and smears the anus with an ointment to prevent smarting in case the fluid should chance to drop; he then takes a sharp-pointed hypodermic syringe, charged with the carbolized liquid, and slowly throws a few drops into one of the piles. The pipe is left in the puncture a few moments to prevent the fluid from running out, and to allow it to become fixed in the tissue. The pile turns white, and in the most successful cases withers away without pain, suppuration or sloughing. Only one pile is treated at a time, and about a week is allowed between the sessions, until all are cured. The itinerants often advertise their method as "painless," but as a matter of fact only about one patient in four gets anything like exemption from pain. Most of them suffer a sharp temporary smarting, and a few have a terrible and prolonged agony. The majority are cured, however, without interrupting their business.

The original plan has sprouted into numerous varieties. Instead of using olive oil as the excipient, many use glycerine. Then every operator has his favorite degree of strength. Several claim that the stronger the fluid the better it is, and actually inject crystals of carbolic acid melted by heat, while others use mixtures varying in strength all the way down the scale, until we find Dr. Weir, of New York, experimenting with one part of acid to 20 or 30 parts of the solvent. The dose injected varies in like manner. Some advocate great caution, and only put in from one to three drops, while others cram the pile with a syringe full, and seek to make it suppurate or slough. I find two men using creosote instead of

carbolic acid, and several add anodynes, such as morphine, chloral, or iodoform. Ergotine is also a favorite injection, and a great number of mixed formulæ have been imparted to me, some of them containing five of six ingredients. Mr. Colles, of Dublin, injects muriated tincture of iron. Dr. Hill, of Bloomington, Ill., and Dr. Drake, of Hastings, Mich., use the iron persulphate, while others have tried tannin, chromic acid, tincture of iodine, etc. One itinerant, who writes in a straightforward, manly tone, says that he has experimented on almost every coagulating agent in the vegetable and mineral kingdoms. His preference is for the strongest carbolic acid. He adds the following remarks: "The difficulty with all remedies except carbolic acid is the suppuration being limited to a small portion of the tumor, or, like the preparations of iron, causing it to swell and become very painful. Carbolic acid is, so to speak, used up in cooking the blood throughout the entire tumor. The appearance of the pile in from five to twenty seconds shows such to be the fact. Suppuration takes place in three or four days, with sloughing. No danger of hæmorrhage."

The results of these various methods of treatment, may be summed up as follows: In the first place the needle operation has never become a favorite. I can learn of only five persons who make much use of it. The following case was probably treated in that way. The patient, a plethoric man of 45 years, went to a quack in Chicago, and as the result, a varicose hæmorrhoidal vein was widely opened. He says the blood gushed out freely, but after some trouble was arrested through the application of means not clearly understood by him. He then returned home in great agony, and sent for his family physician, who in turn called me in council. The family physician took off sundry cloths and compresses, and found a large opening in a vein plugged with a vial cork. The quack, I presume, tore open the thin walls of a dilated vein, and being driven to his wits' end by the gush of blood, finally concluded to cork up his patient like a demijohn.

My informants agree that the injection method seldom fails to cure the disease, but they report some serious disasters. The writers know of about 3,304 cases treated in their vicinities by

these methods, and though they cannot always give exact numbers and details, yet the circumstances are such that a case of rapid death from the treatment, could not be concealed, though minor troubles, such as pain, sloughing, etc., might frequently escape their notice. It is probably, therefore, that the list of deaths is pretty complete, while the figures giving the minor accidents, are too small.

LIST OF ACCIDENTS.

Deaths	9
Embolism of the liver (suspected)	8
Very dangerous hæmorrhage	5
Less " "	5
Carbolic acid poisoning (recovered	1
Sloughing (generally but not always confined to the piles)	23
Abcess (of the liver)	1
Severe inflammation	10
Violent pain	83
Stricture of the rectum	2
Permanent impotence	1
Long sickness (2 weeks to 6 months)	6
Relapsed	7
Failed of cure of piles	11
Sundry other accidents	12
	184

Cases of sloughing and suppuration of the piles, are innumerable. Some itinerants use strong injections with the express purpose of producing these results, deeming that the plan of causing them to atrophy without suppuration, lacks certainty and permanence.

The list shows that while the deaths are so few that the risk is no greater than in other modes of treatment, yet the minor accidents are very numerous. The imperfection of the reports renders a thorough s udy of the accidents impossible, but the following informmation has been gleaned. One of the deaths was caused by inflammation followed by immense abscesses, erysipelas and pyæmia. The patient died on the fifth day.

Another death apparently resulted from embolism of the liver. That viscus nearly ceased its function; the stools were light-colored and scanty, the skin yellow, and all the lymphatic glands of the groin, axillæ, and neck became enlarged. A full dose of calomel always brought temporary improvement, but no permanent benefit. The patient lingered along, and died unrelieved, about one hundred days after the operation. The next fatal case was that of a man 84 years of age. The person who injected the pile, said it was "very large and very deeply seated." It was suspected that he mistook the enlarged prostate for a hæmorrhoid. Be that as it may, the patient was attacked with violent pain and retention of urine, and though relieved by the catheter, died the third day. There is no proof however, that the prostate was injected, nor that it would be fatal if it were.

The fourth death was also attributed to injecting the prostate, but no symptoms are given.

The five remaining deaths are so vaguely reported, that I am unable to give any particulars about them. It is possible that three of the reports refer to the same patient, and ought to be counted as one, in which case the whole number of deaths is only seven. This number of fatal results in 3,300 cases, treated often in the most reckless and ignorant manner, is certainly not large, and tends to show that the injection method is as safe as any other, so far as life is concerned.

The same relative immunity appears respecting hæmorrhage. Five dangerous cases of it are reported, but in most, if not all of them, it occurred from the foolhardy practice of allowing the patient to take long rides and walks when he should have been in bed; but even with all this imprudence the hæmorrhagic cases are fewer than occur after the use of the clamp and the ligature. Allingham reports more instances of hæmorrhage after his favorite operation, the ligature, than I can find among all these cases of injection.

The chief objection of the profession to this operation, has been the fear of embolism. The two lower pairs of hæmorrhoidal veins send their blood by the route of the internal iliacs to the heart, but they are small, while the upper pair is much larger, and carries the great mass of the blood of the hæmorrhoidal

plexus to the liver, hence we should expect that embolism, if it occurred at all, would be of the latter organ. The facts agree with the indications of the anatomy, for not a single case is reported of a sudden death, such as would proceed from clots swept to the heart and lungs, but there are eight instances of suspected embolism of the liver; only one of them died, and there was no post-mortem examination, so that possible proof is wanting.

The first is the fatal case of liver trouble already described. The second was marked by an abscess of the liver, but the patient recovered. In the third case the patient was attacked one hour after the injection with severe pain in the liver. After some time the pain was relieved, and no further trouble followed, but the physician feared to repeat the injection.

In the remaining cases it is simply reported to me that the patients after operation, were attacked with disease of the liver, but did not die; no particulars were given. It is probable that in a portion of the cases the liver disease pre-existed, and was the cause of the piles and not the consequence of the operation. On the whole, there does not appear to be any decided danger of embolism, if the case is carefully handled. I may mention here, that Dr. Whitmire of Metamore, Ill., practices tamponing the upper part of the rectum for 24 hours, to prevent any emboli from moving in that direction.

Sloughing and suppuration of the piles generally follows large and concentrated injections, but not the small and dilute ones. A few cases only of extensive abscesses have occurred.

The most frequent of all accidents is the occurrence of severe pain. The verge of the anus is extremely sensitive, and injections put in near that circle are liable to produce fearful distress, but above the verge, the sensibility rapidly diminishes, so that much less suffering is entailed by the injection of internal piles. In about one-fourth of the patients the pain is very slight. Dr. Weir of New York injected two series of patients, one with strong, and the other with weak carbolized solutions, using in the latter only one part of carbolic acid to ten, twenty or thirty of the excipient. He found that the pain and the abscesses followed

the use of the strong injections, but were escaped when weaker ones were imployed.

The remaining accidents in the list are not peculiar to this operation, nor greater in number than occur in other methods. The operation was a new one, and its conditions of safety were unknown. When we consider that many of the operators were ignorant blockheads, with no qualifications for the business except a bottle of carbolic acid and a hypodermic syringe, and with no idea of efficiency but to distend the hæmorrhoidal plexus, with all the liquid caustic they could get into it, we shall not be surprised at discovering a few deaths and a number of minor accidents. Had the method itself not been an unusually safe one, they would certainly have slaughtered their scores of victims, for the difference is world-wide between their ignorant injecting, and cautious, scientific surgery. If the following rules be observed I believe that the method of treatment by hypodermic injection will be less painful than any other, and equally safe.

1. Inject only internal piles.

2. Use diluted forms of the remedy at first and stronger ones only when these fail.

3. Treat one pile at a time, and allow from four to ten days between the operations.

4. Inject from one to six drops, having smeared the membranes with cosmoline to guard against dripping. Inject very slowly and keep the pipe in place a few moments to allow the fluid to become fixed in the tissues.

5. Confine the patient to bed the first day, and also subsequently if any severe symptoms appear. Prohibit any but very moderate exercise during the treatment.

Under all treatments as well as when left without treatment, piles are subject to possible hæmorrhage. Allingham gives the following method of applying the tampon where the bleeding vessel cannot be found promptly, aud controlled by other means. He takes a good-sized sponge and fastens a strong double string through its center. (He prefers a bell-shaped sponge inserted with the open end downward.) Having pushed the sponge up the rectum some inches beyond the bleeding point, he fills the parts below with cotton dusted with powdered alum or persulphate

of iron, and ties a stick across the finished tampon with the double string. By turning the stick like the handle of a gimlet, he twists and tightens the string, forcing the tampon firmly up against the sponge and causing it to spread laterally and compress the bleeding vessels. He advises the insertion of a large catheter with the tampon to give exit to the flatus. By the help of opiates the tampon is often tolerated several days.

My final conclusion is that the wild itinerants of the prairies have really made a valuable contribution to scientific knowledge, and that the cautious injection of hæmorrhoids with carbolized solutions will remain as one of the permanent operations of surgery.

The number of physicians who have contributed to this investigation is so large, that it is impossible to give separate credit to each one, but I return them collectively my thanks, and especially to Dr. J. Bussy, of Raub, Ind., who was kind enough to write to over thirty medical men in my behalf.

The literature of this subject is very scanty, and is mostly covered by the following references:

THE CHICAGO MEDICAL JOURNAL AND EXAMINER, October, 1876, article by Prof. E. Andrews.

The *N. Y. Medical Record*, Vol. XI., p. 112.

The *Maryland Medical Journal*, June, 1878.

The *London Lancet*, pp. 228, 1877, Article by H. A. Reeves.

The *Philadelphia Medical and Surgical Reporter*, July 6, 1878.

The *Cincinnati Eclectic Medical Journal.* Three articles in 1874, 1877, and in December, 1878.

The *Toledo Medical and Surgical Journal*, November, 1877. Article by Prof. J. A. Pooley.

The *Louisville Medical Journal*, August, 1878. Article by Dr. J. M. Matthews.

The *N. Y. Medical Journal*, March, 1879. Report by R. F. Weir, M.D., to the Therapeutical Society.

The *American Medical Bi-Weekly*, April 27, 1878. Paper of Dr. J. M. Matthews, before the Kentucky State Medical Society. Also in the same journal, Feb. 16, 1878, a paper read before the same society by A. B. Cook, A.M., M.D.

The St. Louis *Clinical Record*, April, 1878. Article by S. B. Hauts, M.D.

Ashurst's Surgery, 2d edition, p. 831.

"Hæmorrhoids or Piles, etc.," a pamphlet by E. J. Fraser, M.D., San Francisco, Cal. No date.

Journal de Médecine et de Chirurgie, Paris. Tome I. Mars, 1879.

No. 6, SIXTEENTH ST., CHICAGO, ILL.

ARTICLE VI.

A RÉSUMÉ OF CASES TREATED ACCORDING TO LISTER'S ANTISEPTIC METHOD IN COOK COUNTY HOSPITAL.

By A. GOLDSPOHN, M.D., formerly House Surgeon.

This system of surgery was introduced in Chicago, and in this hospital during March, 1878, by Dr. Edwin Powell, who had observed its use at length in the hands of its author, Joseph Lister, at Kings College Hospital, London.

The following cases are such as occurred in a certain length of time and are taken without selection. The first nine were in care of Dr. Edwin Powell, the next two in care of Dr. E. W. Lee and the last four belonged to Prof. Moses Gunn.

Case 1.—P. W., æt. 39. Dry gangrene of index finger; amputation through the continuity of first phalanx. Was redressed once. Union by first intention was perfect, and only a little serous discharge was found on the dressing.

Case 2.—F. W., æt. 18. Abscess beneath the palmar fascia of the hand. Was lanced and considerable inspissated pus evacuated. The cavity was rendered aseptic by thorough washing with a 20 per cent. solution of carbolic acid, and dressed under the spray with the antiseptic gauze. It was redressed only a few times. The wound healed not so rapidly, but kindly and without suppuration.

(In the next case, it will be observed, the chances for infection were given so long before the Lister dressing was applied that it was scarcely any fair test).

Case 3.—C. K., æt 35. A compound fracture of the skull with removal of pieces from both tables at the bottom of a gaping scalp wound. A triangular excavated wound of about 15 square centimeters in area, in the right supra-clavicular region, showing the pulsations of the sub-clavian artery plainly. Also, amputation of the little, ring and middle fingers of one hand, with their metacarpal bones at and near the carpo-metacarpal joints. The surface open with no flaps. Was admitted into the hospital in this condition, 24 hours after receipt of injuries. The wounds were dressed for nine days with boracic acid, i.e., crystals and solution on lint. The hand then looked well. During this time the temperature ranged from 37 4-5° C. to 39½° C. On the 10th day the antiseptic gauze was applied to the head and the hand, and was renewed on the 11th, 12th, 13th and 14th days. The patient's course continued favorable until the 13th day, when loss of appetite, thirst and chilly sensations appeared. Subsequently severe chills occurred irregularly; the temperature rose at different times to over 40 3-5° C.; the wounds which now bore simple dressings, began to assume a shriveled appearance; and the patient failed rapidly and died on the 17th day.

Case 4.—J. C., æt 42. Amputation of finger, done and dressed under the carbolized spray. The dressing was renewed on the 3d day, when a little thin, reddish discharge was noticed, but no bad odor. Again, on the 12th day, the stump was substantially healed, excepting a little superficial granulating surface; but on the 22d day a collection of pus was found beneath the previously united flaps.

Case 5.—J. F., æt 22. Resection of elbow after destructive inflammation of the joint, following gunshot injury. A longitudinal incision at least 12 centimeters in length, was made on the dorsal aspect of the joint. The articular surfaces being destroyed, the adjoining ends of the humerus, radius and ulna were removed. The ball was found lodging in the greater sigmoid notch. No ligatures were required. A drainage tube was inserted and the wound closed with carbolized silk sutures. The operation was performed and the regular Lister dressing applied carefully under the spray. With this the arm was then adjusted upon an angular anterior splint at an angle of 45°. A small

amount of anodyne was needed just after the operation, but subsequently the patient was entirely comfortable and ate three good meals daily. On the 3d day, the wound was redressed the first time. Immediate union was in progress nearly everywhere. Some dark red and watery discharge was found on the dressing, but the odor was very good. Union by first intention did occur in this case in every portion except one fistulous opening where the drainage tube had been. The wound was redressed in all five times, and at intervals of four and five days. At no time after the operation in this case, was there any marked general disturbance. The temperature ranged between 36 4-5° and 37 2-5° C., although on the evening of the 2d, 6th and 7th days, after some excitement from visitors, it was 37 3-5° C. During the whole time the patient who previously looked pale and a little emaciated, gained perceptibly in nutrition during the Lister régime. When the wound was healed, Dr. Powell had the patient anæsthetized again, and then put the forearm through its motions. These the patient was instructed to maintain, and several months later he reappeared to exhibit the arm with flexion and extension at the elbow nearly perfect.

Case 6.—H. S. H., æt 40. Scirrhus of female breast, amputation. Catgut ligatures were used; a drainage tube was inserted; and the wound closed by interrupted sutures and dressed antiseptically. In this case we must rely chiefly on the hospital record of the case, which is quite incomplete, except as to temperatures taken. It is known, however, that the wound healed very kindly throughout, and mostly by first intention. Some pus was noticed at several dressings; but no surgical fever of any moment occurred. The temperature rose twice to 38 3-5° C., but otherwise ranged between 37° C. and 37 4-5° C.

Case 7.—Mrs. S. F., æt 56. Epithelioma of forearm 4½ centimeters in diameter. Removed by oval incision, and the margins of the wound approximated with interrupted sutures. The peculiar dark serous discharge was abundant in this case. Consequently the wound was redressed after 24 hours for the first time, and afterwards three times more at intervals of two and three days. The wound healed by first intention except where

the discharge from the interior made its exit. No pus was formed and no fever experienced, but the patient had some pain.

Case 8.—S. T., æt 45. A lacerated wound of the scalp semicircular in outline, and fully 8 centimeters in extent. Also a lacerated wound of hand, with fracture of first phalanx of second finger. Four sutures were put into the former and one into the latter wound, and both dressed antiseptically. They were redressed once i. e. on the second day; and on the third the wounds were closed so that the patient went out at his own request. The temperature was about normal in the morning, but it rose to 39° C. and 39 1-5° C. on the evening of the first and second days respectively.

Case 9.—J. C.. æt 55. Encephaloid tumor of the thyroid body. The irregularly globular tumor was about 8 centimeters in diameter, and compressed the trachea considerably, so that the patient experienced marked difficulty in breathing when lying on his back. Dr. Powell made a straight incision 8 centimeters long, parallel to the inner border of the sterno-cleido-mastoid, passed his finger around the tumor, tore loose many of its attachments and removed it. Much hæmorrhage attended the operation, and several ligatures were required. The margins of the wound were stitched together and the regular antiseptic dressing applied. In this case there was a large discharge of sero-sanguinolent fluid which made it necessary to renew the dressing daily and sometimes oftener. But no pus was formed nor any bad odor observed. The temperature was 38 4-5° C. on the morning after operation; but after that it did not exceed 38 2-5° C. The patient was always comfortable and slept well, but did not eat much. In a week after the operation the wound was nearly healed, and the patient went home of his own accord.

Case 10.—Lacerated wound on the dorsum of a hand, caused by a saw, cutting off the head of the metacarpal bone of the index finger, injuring the base of the first phalanx of the middle finger, and laying open the joint between the first and second phalanges of the little finger. The index finger remained attached by a palmar flap, through which some flexion was retained when the joint was fixed. The injured ends of bone and numerous strands of soft tissues were removed. The wound was carefully

cleansed with 20 per cent. solution of carbolic acid under the spray, its surfaces approximated and its edges held in opposition by plastic pins. The Lister protection and gauze were applied and the hand then adjusted on a palmar splint. Was redressed on the 4th day. Union by first intention of nearly the entire surface was evident. No pus nor foul odor. Everything was in the same excellent condition on the 7th day. Healing was complete except two small granulating orifices at angles of the wound. Removed the suture pins. A simple dressing would now have been sufficient; but the gauze was put on four days more. Then the healing was perfect.

Case 11.—J. H., æt 29. Amputation of index finger at carpo-metacarpal joint after a suppurative lymphangitis of the hand, following a bite of the finger implicated. Was redressed after the 3d day. In the meantime the temperature was high. But it lowered after the first dressing and remained nearly normal. The amount of pus, considerable at first, became less and less with each of the following dressings which were applied on on the 6th, 7th and 10th days. The patient's general condition became very much better. (Suppuration was to be expected in this case from the previously infected tissues).

Case 12.—R. M., æt 13. Amputation of 3d, 4th and 5th toes with the greater portion of their metacarpal bones. A scant plantar flap was all that could be constructed; yet the wound was closed with sutures re-enforced by adhesive straps, which relieved the tension. The dressing was renewed on the 3d and 5th days, when union by first intention in about three-fourths of the wound was assured. No sloughing occurred, but a few small gaping orifices remained at angles of the wound, from which a little purulent fluid issued. While these were granulating, the regular dressing was applied five times more at intervals of three and four days. The temperature, after the first day, was 39° C., after the second day 38 2-5° C.; but afterwards never rose above 37 4-5° C.

Case 13.—T. K., æt 65. Necrosis of toe, amputation through the metacarpal bone. Was done à la Lister. Patient continued comfortable. The dressing was renewed on the third day, when the wound appeared quite favorable; again on the fifth and sixth

days, when a little pus was found and an offensive odor. On the fifth day the nurse reported the patient to have had a chill, though he had not felt cold. Following this, the temperature rose to over 40 3-5° C. This continued without much reduction, together with a very obtuse mental condition until death on the morning of the seventh day. Post mortem showed septicæmia.

Case 14.—C. G., æt 53. Amputation of irritable stump of leg. The patient continued to be very comfortable, and not the slightest odor could be detected as days passed by. The leg was redressed for the first time at the end of 94 hours, when union by first intention throughout was assured. The discharge was very small in amount and all smell was "sweet." The dressing was now left on for seven days and then discontinued, the wound being healed with the exception of two very small and superficial granulating surfaces, to which carbolized cosmoline was applied. The temperature in this case was 38½° C. a few hours after the operation, but subsequently it never exceeded 37 4-5° C.

Case 15.—S. M., æt 7. Railroad injury, crushing of both ankles. Three hours later Dr. Gunn amputated each leg through its middle third. Hæmorrhage had been considerable before the operation; and after it the little boy was ghastly pale with scarcely any radial pulse. Reaction came slowly; and later a period of traumatic delirium was encountered. The stumps were redressed on alternate days. The proper sero-sanguineous discharge continued with a good odor of the parts until the points of the antero-posterior flaps began to slough, as they did seemingly from too great tension. Union by first intention had taken place very satisfactorily on the interior of the wounds between the bodies of the flaps; and the granulating surfaces which remained when their dead extremities had dropped off, assumed almost perfectly the condition of a typically healthy ulcer under this dressing. Before the sloughing no pus occurred, but during its continuance pus was always found on the dressings which were then changed daily. The temperature was high in this case, especially during the first week. Then it lowered and afterwards rose once more for a very short time.

REMARKS.—In order to succeed with with the Lister régime the following points should be observed:

(1.) All hæmorrhage should have ceased before closing the wound.

(2.) Animal ligatures only should be used and they should be cut short.

(3.) When a wound is large or when from its vascularity much discharge may be expected, one or more drainage tubes should be inserted, whose orifices must not be occluded by the oiled silk protective.

(4.) The entire dressing should be soaked in carbolized water, when ready cut, in order to make it more pliable. This feature is desirable not merely for the greater comfort it affords the patient, but especially because the individual pieces can be more exactly molded to the surfaces adjacent to the wound.

The conditions from which we recognize the efficiency of a dressing or the necessity for its renewal are (1), The odor of the part (2), The amount and character of the discharge, and (3), Pain and temperature. If the odor becomes putrid; if the discharge becomes purulent or so great in amount as to moisten the outermost layers of the dressing: if pain be unduly great; if the temperature be very high or take a sudden rise; if any one or more of these features exist, a renewal is called for; but in their absence the same dressing may be left on indefinitely.

DR. JAMES E. MORGAN, the last surviving officer of the Pharmacopœia Convention of 1870, has issued a call for a Sixth Decennial General Convention to be held in the city of Washington in May, 1880, for the purpose of revising the Pharmacopœia of the United States.

The rules adopted by the last convention are to be found on page 11 of the present edition of the Pharmacopœia.

The call is addressed to State Medical Societies, and to incorporated Medical Colleges, Colleges of Physicians and Surgeons, and Colleges of Pharmacy throughout the United States.

Society Reports.

ARTICLE VII.

CHICAGO MEDICAL SOCIETY, Regular Meeting, being the Twenty-seventh Annual Meeting, April 7th, 1879. Dr. Ingals, president, in the chair.

The Secretary, Dr. Graham, read his report, which while it showed one hundred and eighty-five members at present on the society's roll, did not, he said, represent more than one-half the profession of the city eligible for membership.

The result of the election for new officers was as follows:

President, Dr. E. Andrews; Vice-President, Dr. R. G. Bogue; Secretary, Dr. D. W. Graham; Treasurer, Dr. F. H. Davis.

An honorarium was tendered to the secretary for his efficient services during the past year, and one to the proprietor of the Grand Pacific Hotel, Mr. Drake, for courtesies extended to the society in providing commodious quarters for their meetings.

A committee was appointed to see the new Mayor-elect, and desire him to separate the duties of the sanitary officials from the domination of politics, and to retain in office the present Health Commissioner, Dr. De Wolf.

After the customary brief addresses from the retiring and the newly elected officers, the society adjourned.

ARTICLE VIII.

CHICAGO MEDICAL SOCIETY, Regular Meeting April 21st, Dr. Andrews, president, in the chair.

The president read a paper on "The Treatment of Hæmorrhoids by Injection," which was substantially the same as his

article on the same subject in the present number of the JOURNAL. The paper being before the society for discussion, DR. BYFORD, after commending it highly, inquired concerning the use of other strong acids beside the carbolic applied locally, and as formerly employed. He had often found them effectual, nitric acid particularly, and usually comparatively painless.

DR. ENGERT observed that she had used the ungentum hydrargyri ammoniati, U. S. P., in several cases with excellent effect.

DR. INGALS had enjoyed listening to the paper, and was especially glad to see that Dr. Andrews had not hesitated to go outside of the regular professional ranks, and gather information from every available source. Many of the charlatans were reckless or ignorant enough to resort to practices which we would not dare to employ; and yet we ought, in justice, to profit by their experience. He also inquired concerning the local use of iodine for piles; he had had no experience with it, but thought that, on theoretical grounds, it might be used with advantage.

DR. FENN said that he had been in the habit of treating many of these cases more as medical cases than as surgical; that is treating the digestive organs which were often at fault, and endeavoring to perfect the processes of digestion and elimination—which was often of prime importance. But he should be more ready now than ever to resort to radical means of relief by the method of injection.

DR. STEELE asked if the writer of the paper had had any experience in rupturing the sphincter ani.

DR. PAOLI thought that by many of the means of treatment strictures of the rectum had been produced from the cicatrization following removal of tissue. He insisted that in persons of intemperate habits or "high-livers" there was a necessity that they should adopt a temperate life and follow simple hygienic rules. He also said that he had given relief by using suppositories containing iodoform.

DR. HAYES said he understood that certain of the quacks used a little clamp about the base of the pile to obstruct the circulation before injecting it. Knowing the effect of ergot he had more than once used a simple gelatine coated 3-grain pill of ergotine as a suppository, and this with excellent result.

DR. BOGUE had used injections of 95 per cent. carbolic acid, pure, in six cases, injecting from .03 to 0.40. In five cases the results were certainly beneficial; in the other case uncertain. The pain was inconsiderable in all but one case.

DR. TILLEY stated that Richardson, of London, had been using the sodium ethylate for destruction of vascular tumors of various kinds, and he inquired whether Dr. Andrews had used it for destruction of piles.

In reply to the various queries, DR. ANDREWS stated with regard to the use of strong acids, that there was much contradiction among authors concerning their effectiveness and painlessness. In his opinion, when a pile was uninflamed, nitric acid was effectual and simple; but in proportion as the pile became thickened and developed sensory nerves the acid caused more distress. He had heard of the use of iodine, but was unable to give any definite information concerning it, though he had little doubt that it might be of service. He had never tried to rupture the sphincter in these cases. In one of his early cases he had removed too much tissue and had seen a stricture of the rectum as the result; and he would give a general caution against the removal of too much of the base of the pile, whether it were crushed, snipped off or cauterized. He had not used the sodium ethylate because he had not thought it any better than to use the caustic alkali itself.

Lastly, when promptness of result was desirable on account of sympathetic bladder or uterine inflammation, he thought the method by injections would be too slow, and some more rapid one must be adopted; but when the piles were above the anus, he thought the method of repeated, small, diluted injections the most preferable of any.

ARTICLE IX.

THE WEST CHICAGO MEDICAL SOCIETY met at the Washingtonian Home, Monday evening, March 24th.

Dr. D. R. Brower reported three cases of Traumatic insanity, exemplifying, as the doctor thought, three points: First, that the insanity may appear at a long interval after the cranial injury.

Second, that in the first manifestations the emotional aberrations predominate, later the intellectual. Third, that acute meningitis is not an essential feature of the disease. The doctor discussed at some length, the medico-legal phases of this condition.

Dr. Holmes, the subject being thrown open to the society, narrated a case similar in its history and bearings, to those of Dr. Brower. Dr. Lyman mentioned another; and a second one in which insanity occurred in an individual who had suffered an injury to the spinal column, the cord having apparently escaped injury. Dr. Brower mentioned incidentally a case of insanity following hernia—the insanity as well as the hernia being relieved by a truss.

Dr. Salisbury narrated a case of periodical mania, following at a considerable interval a cranial injury. The mania ceased after the free exhibition of quinine.

Dr. Bridge mentioned the case of a patient who received an injury on the head. Some time subsequently he became suddenly and violantly insane. In a short time he recovered, complaining only of pain in the head. His intellect is now somewhat impaired.

Dr. Strong presented a specimen showing anchylosis of the spine—a case of recovery from Potts' disease. The doctor referred to another specimen in his possession, which was still more remarkable.

Dr. Earle presented a specimen of intus-susception, in which there had been none of the ordinary symptoms, except vomiting. The autopsy showed no evidence of inflammatory action—not even an effusion.

OBJECTIVE SOUNDS FROM THE EARS.

Dr. Holmes presented the abstract of a case, in which a young lady 17 years of age, pale, weak, often troubled with a cough, had suffered since early childhood from a peculiar, involuntary spasmodic contraction of the pharyngeal muscles. These spasms, occurring about forty times a minute, resembled the act of swallowing. Synchronous with each spasm was heard very distinctly, eighteen inches from the patient's left ear, a peculiar clicking sound—much less distinctly from the right ear. Listening to

the patient's mouth, wide open, revealed the same sound, but faint and as if coming from a distance.

Dr. E. F. Ingals made repeated and careful laryngoscopic examinations of the fauces, and observed a separation of the lips of the Eustachian tubes with each muscular spasm, and with each sound.

The throat presented a normal appearance, the region of the mouths of the Eustachian tubes, however, being bathed with a slight muco-purulent secretion.

The external meatus was normal. The membranæ tympani were each thick and opaque at their upper portions, and thin and translucent at their middle and lower segments. With each spasm was a slight motion of the left membrane. The use of quinine and iron, cod liver oil and Fowler's solution internally, exercise and freedom from her previous close confinement, with saline solutions for the nostrils, after some months, improved the general health, but effected no change in the local symptoms.

The reporter was inclined to believe the sounds were chiefly caused by spasms of the tensor tympani muscle. The separation of the moist lips of the Eustachian tubes might increase the intensity. Such cases are very rare; a few are mentioned in special journals of otology. In the *Boston Medical and Surgical Journal*, November 3, 1877, is reported by Prof. Henry J. Bigelow, a case in some respects analogous. The sounds seemed, however, to proceed from the throat. Dr. Holmes stated that he once had the opportunity of examining this case. He had been informed by Prof. Bigelow, that this patient, as also another similarly affected, finally recovered.

Dr. Chris. Fenger, pathologist to the county hospital, exhibited some morbid specimens obtained from a recent patient. When he opened the body, the doctor had no history of the case, except that the patient had presented typhoid symptoms. Opening the abdomen, he found infarctions in the subserous tissue of the intestines, in the spleen and kidneys. The source of these emboli was found in an ulcerous endocarditis, both sets of semilunar valves presenting an abundant deposit. Upon examining further, an embolus was found in the left middle meningeal artery, which had caused an extensive infarct; and several small

infarcts were found in each retina (illustrating the importance of the ophthalmoscope in the diagnosis of heart disease). The doctor thought, from the fact that some of the infarcts were breaking down into abcesses, that the cause of the endocarditis was septicæmia. There was no evidence of acute rheumatism, nor of any surgical operation. Careful search, however, revealed a suppurating synovitis at the bottom of a large bunion. Dr. Fenger said that this might have been the starting point of the whole disease. As proof that this was a blood disease, the doctor exhibited under the microscope some of the exudate from the heart valves, in which were myriads of micro-cocci.

W. T. BELFIELD, *Secretary.*

A STIMULANT AND CORRECTIVE FOR THE *Index Medicus.*—We are very proud of this new journal. But here comes L. H. Petit, one of the librarians of the Faculty of Medicine in Paris, and gives the following list of medical and scientific publications not catalogued in the *Index*: *Revue d'hygiène*, Paris, 8°; *L'art dentaire*, Paris, 8°; *La Gazette odontologique*, Paris, 8°; *Annuaire de thérapeutique*, Paris, 12°; *Annales scient. de l'Ecole normal supérieure*, Paris, 8°; *Bulletin de la Soc. de méd. légale*, Paris, 8°; *Journal des sciences méd.*, Lille, 8°; *Gazette d'ophthalmologie*, Paris, 8°; *Le Praticien*, Paris, 8°; *La moderna med.*, Torino, 8°; *La Sardegna med.; Atti della Reale Academia delle scienzedi Bologna; La Scuola med. Napolitana*, Napoli, 4°; *Giornale internazionale delle scienze med.*, Napoli, 4°; *Cronica cientifica*, Barcelone, 4°; *La Gaceta méd.*, Lima, 4°; *Liverpool and Manchester Medical and Surgical Reports*, 8°; *Clinical Lectures and Reports*, London, 8°; *Reports of Dublin Pathological Society*, 8°; *Public-Health Reports of the Medical Office of the Privy Council*, London, 4°; *Deutsches Archiv für Geschichte der Medicin; Centralblat für Nervenheilkunde*, Leipzig, 8°; *Galenos* (Greek), Athens, 8°.

Foreign Correspondence.

ARTICLE X.

SURGERY IN LONDON. — OSTEOTOMY. — CALLENDAR'S AND LISTER'S METHODS OF TREATING WOUNDS.

Messrs. Editors:—With only the scanty time afforded by a two weeks' opportunity to judge of matters and things, I am justified in making one rather positive assertion, and that is, that no country's schools have better, if as good, clinical advantages as do these in London. Better results could not be effected with the material at the clinics than are there obtained by the renowned gentlemen conducting them. Assuredly surgery is here on the topmost wave of success and advancement. He who passes by London in the fond delusion of meeting with something better beyond, has failed to entertain, or be entertained by, the angel in disguise. Earnest men are here — learned, skillful men — men of genius and worth; and their works are full of the richness of ripe experience and and thoughtful maturity. Always at work, never idle, ever alive, grand results must be the fruit of their incessant activity. The cordial good feeling and courteous treatment shown to a stranger by all these busy, and I may say overworked men, is beyond expression pleasant and cheering.

So far, I have visited only three or four hospitals, among them, of course, the oldest of all, St. Bartholomew's, always noted as the school of sound surgical teaching and successful surgical practice. I don't know why I came here first; perhaps it was because I had a personal fondness for it, owing to the fact that Thomas Vicary, one of the earliest and most renowned teachers in this school and hospital, published the first work on anatomy written in the English language. As one treads the

stones of the court of this hoary old structure, wanders through its halls or wards, or sits in its amphitheater, the very air seems heavy with truths evolved by its men of genius, and the walls echo the words of wisdom and honest instruction which issued from the lips of some of the greatest men whose triumphs have adorned the temples of our profession. It must be that the men who, in succession, follow in the footsteps of these great teachers, are aided and encouraged by the memories of the departed, to renewed determination of maintaining the glorious inheritance left them.

The happiest good feeling is shown to exist among the gentlemen associated together here. This fact will impress the visitor immediately. No self assertion, no spirit of criticism, each seems to vie with the other in offering assistance and sympathy. There is no solemn funereal silence maintained through an operation, but opinions are freely given and asked for by all present. It seems certain that good only, results from this freedom of consultation and mutual support. I have seen it nowhere else in any such degree as here, and its introduction as a customary method of action in other places, would eradicate stiffness, adverse criticism and many other of the unpleasant surroundings during public operations, to say nothing of the benefits which would assuredly follow its adoption.

Another good thing here. On every Thursday afternoon all the surgeons connected with the hospital appear, and all cases requiring operation are brought publicly into the theater, and an open consultation held upon them, every surgeon expressing his opinion on each case, the majority deciding what shall be done. The students being present reap the advantage of seeing the manner each one has of studying his cases, and the course of reasoning which leads up to the final conclusion.

The newest study presented to me so far has been that accompanying the comparatively new operation called osteotomy, done for the relief of deformity, either congenital, or acquired as the result of injury or disease. I call it comparatively new, because I believe that the last claimant for the honor of having originated, put into practice, and established the perfect feasibility of the operation, dates his first case sometime in 1876. It is certainly

a very young operation to have come so early into almost universal adoption. Everybody here divides and cuts off bone in every possible direction, and for every possible trouble, with little more fear, apparently, of resulting harm than would probably follow paring a man's nails.

Mr. Callender, of St. Bartholomew's, did the operation on a boy about 12 years old, over a week ago. The little fellow was badly knock-kneed. The operator made an oblique incision from within downwards and outwards, over the tibia about one and one-half inches below the joint, freely exposing the bone. He partially divided the bone with a narrow chisel and then forcibly fractured it. The fibula did not give way at once, as frequently occurs, so Mr. C. cut down upon the fibula and divided it with the chisel. Then as the leg was prevented from coming to the same line as the femur by the external lateral ligament of the knee-joint, that ligament was divided subcutaneously, and the members of the entire extremity, placed in the same line. A long external splint extending from below the foot well up upon the body, was then applied, and the padding and rollers so arranged as to allow of easy dressing without disturbing the limb. The wounds were closed with sutures and covered with lint soaked in carbolized oil, 1 part to 10 or 12. The oil to be constantly renewed so as to keep the wound fresh and soft, but the other dressing on no account to be disturbed. I saw the boy again a week after the operation, the same blood-stained dressings were on the knee as when I saw him put to bed, only the most external had been taken away. The carbolized oil had been repeatedly applied. Everything was sweet about the wound, there was no evidence of inflammation; the patient was comfortable and free from any pain. No attempt whatever was made to do an antiseptic operation. Mr. Callender insists on, provides for, and secures absolute rest for his patients, after and during the treatment of any injury. His success is as good as any other surgeon's with similar cases and like surroundings, and he certainly attributes very much indeed of this good result to the imposition and maintenance of perfect *rest* of the injured part, and of the entire body. It is the surgeon's duty to look to its requirement, to provide the means of securing it, and to be resolutely deter-

mined, that it shall be maintained. One who follows his cases and sees his results, cannot fail to be impressed with the truth of these principles which he so ably and incessantly inculcates.

I saw a case done by Mr. Lister at King's College Hospital on a man 30 or 40 years of age; both limbs were operated upon by Mr. Lister with all the antiseptic precautions and treatment so earnestly advocated by that gentleman. In this case, only a separation of the internal condyle of both femora was effected. The incision through the soft parts called subcutaneous, was made just opposite to the point where the condyloid surface becomes continuous with the surface of the shaft of the bone. A narrow, slender chisel was introduced into this opening, and the condyle separated from its attachment by driving the chisel into the bone at different points, until the condyle was all but free; then it was forcibly broken loose by drawing the leg strongly inwards. The leg was then easily placed in line with the femur. The chisel was not allowed to enter the joint or even to touch the catilaginous coverings of the end of the bone. Both limbs were then fixed in plaster of Paris casings from hip to ankle, a fenestra being cut out opposite to the seat of the wound. The wound was dressed antiseptically every day for a day or two, and then once a week or as often as occasion required. Mr. Lister showed in this case, that underneath the blood clot which filled up and to a degree overlapped the wound in the soft parts, the process of cicatrization was progressing rapidly without any evidence whatever of inflammation or suppuration. He said this often occurred in wounds dressed according to his method. He remarked also, that blood-clots in wounds were organized, in so far that their constituents were replaced by connective tissue cells, and the débris absorbed. No one can more carefully and certainly provide for free drainage, than does Mr. Lister, in every wound that he makes. If there is any one detail of operative procedure to which he devotes more attention than drainage, it is close and accurate adjustment of the edges of wounds. Relief of tension is always provided for, by sutures introduced far away from the edges; they are always of wire, and held in place by oval shaped leaden plates, 2 Cm. wide and 4 Cm. long. The interrupted sutures are placed near to each other between these long and deep

ones, for preventing tension. Catgut ligatures are used to control hæmorrhage. He showed several other cases of osteotomy, all doing well. From what has been seen thus far, the conviction is that anything like an ill result is the grand exception, after these operations on bone. Last Thursday, at the consultation at St. Bartholomew's, Mr. Callender presented a boy aged 6 or 7 years, who had met with a fracture of both bones of the forearm sometime previously. He had received no treatment from a surgeon, and union had taken place with great deformity, sufficient to interfere with and prevent rotation of the forearm. He proposed to cut down upon the bones, divide them with the chisel, place them in proper position, and treat as in an ordinary fracture. He preferred this to the old method of forcible fracture, because he in this way would know just what injury he was inflicting, and felt no concern but that surely a good result would follow the operation. All these cases are practically compound fractures of bone, and to hear these men talk so unreservedly, and with so much evident satisfaction and confidence, about the result, after surgically producing the injury, is one of the many revelations which have been presented to my vision; and seemingly the bolder the surgical proceeding, the better and more satisfactory the result.

Last Wednesday I saw Mr. Lister make an amputation at the hip-joint for osteo-sarcoma of the lower end of the femur. It was of immense size, and of very rapid development; the history included only a period of seven months. The patient was a woman of about 40 years of age. Mr. L. made an ordinary amputation of the thigh inside of the upper third, as the first step of the operation. After carefully controlling all bleeding vessels in this section, he removed the remainder of the femur by means of a long incision down the outer aspect of the stump, which enabled him to dissect out and disarticulate the remnant of the bone. He remarked that he thought this the best method to avoid excessive loss of blood and shock. The parts being extremely vascular, over forty ligatures were required to stop bleeding. The wound looked almost as "wide as a church door, and as deep as a well," as it lay gaping on the table; a fearful cut indeed. All the details of antiseptic dressing were carried out as they can

only be by the originator of the system. If you were to ask me what I think of antiseptic dressings so far, I should answer that I am still hesitating between opinions. I will tell you why, by giving you an account of the result of two quite similar operations, done, one by a non-believer, and the other by Mr. Lister. The operation in both cases was for very extensive infiltrating carcinoma of the female breast, complicated with enlarged glands in the axilla, the removal of which required very extensive incisions and dissections. Mr. Callender did his operation without any reference whatever to antiseptic dressing, provided carefully for drainage by means of tubing, and brought the edges of the wound into close approximation. The dressing consisted of several double folds of lint soaked in carbolized oil, and covered with oil silk all held in position by adhesion strapping, and the arm carefully fixed to the patient's side—everything done to provide for perfect rest. I saw the patient the next day, and was present when the wound was dressed. The patient was absolutely free from all pain during the whole proceedure, in fact the only thing required, was to cut the plaster strips as they passed beyond the lint folds, and the dressing was lifted off without any trouble whatever. The oil of course had prevented drying, and been a soothing application. This oil is applied by means of long brushes, and nothing harsh of any kind is allowed to touch the wound or patient. By this means the patient's confidence is positively secured, and any fear of pain on his part done away with. No one can deny that such a result is of incalculable advantage to the patient after any operation, and certainly aids the recovery. The dressings are easily secured again by short strips of plaster carried over the old plaster left in position. These first plaster strips are left on until the cure is complete, never torn away while the wound is fresh and tender, a process which always brings agony to the patient. After 24 hours this case was in every way entirely comfortable. Very slight elevation of temperature, less than 38°; during the entire next week this gradually and steadily sank to normal. I saw the patient at the end of the week, the wound all healed, sutures all removed—no pus—not anything but comfort and cheerfulness on the part of the patient. No result could be better than this, and yet how

simple the treatment, how plain and easily fulfilled the requirements! Mr. Callender says these results are common with him, and with his statement to support me, I assert freely, that this is the best and only method of treating wounds.

Mr. Lister did his operation of exactly the same kind and nature, with all his great skill and care. Everything worked to a charm, there was no abscence of spray; everything used was rendered thoroughly aseptic. Mr. L. used similar, if not greater care, than we have noticed in the other case, in providing for drainage, and in the approximation of the wound. The patient's chest and corresponding arm were swathed in the gauze dressing, which was secured in position first by gauze bandage, and then finally by a few turns of the elastic roller, which prevents it from becoming displaced by any movements of the patient. I saw the dressing re-applied a few days after. There was no putrefaction. The wound looked perfectly healthy, but the patient was not as comfortable as in the other case. The change of the dressing was immensely more difficult for the surgeon, and as certainly more painful for the patient, because far more movement on her part was necessitated in the removal and re-application of the gauze, even with so skilled a director as Mr. Lister to superintend. Mr. Lister says pyæmia has passed away, erysipelas is a thing of olden times; ary cavity of the body, joint or otherwise, can be freely opened and examined with impunity and perfect confidence, under the protecting wing of antiseptic dressing. With this statement to support, comes the second assertion — every surgeon ought to master the principles of this most masterly system of safety in operation, and after injuries.

Many surgeons here do not use the antiseptic method of Mr. Lister at all; many in a slipshod manner; none like Mr. L. himself.

C. T. PARKES.

ARTICLE XI.

SOCIETY OF BIOLOGY. February 2, 1879. President, M. Paul Bert.

Contractions due to Intra-ventricular Hæmorrhages.—M. Duret, à propos of a communication made by M. Cassey at a previous meeting, said he had made experiments upon animals which seemed to him to disprove the theory of contraction advocated by M. Cassey. The speaker had found an injection of either water, wax or oil, provided it was made rapidly, produce an immediate and intense tetanism, with considerable elevation of the arterial tension. He attributed this contraction to reflex irritation of the corpora restiformia, or the sensitive portions of the meso-cephalon. Mechanical excitation, executed experiment ally, of the corpora restiformia, sufficed to produce a pronounced episthotonos. Hence the speaker concluded that in intra-ventricular hæmorrhage, the contraction is the result of the reflux of the sub-arachnoid fluid and shock of the corpora restiformia, or to the direct excitation of the blood which, by the aqueduct of Sylvius, flows into the fourth ventricle. M. Duret had undertaken these experiments to verify his theory of cephalo-rachidian shock. He has by intra-ventricular injections, simulated the displacement of the sub-arachnoidean fluid, and in the two cases the phenomena were the same, to wit, violent tetanism.

M. Rochefontaine could not admit the theory of M. Duret, as, according to the speaker's observation, there was very often no fluid in the cerebral ventricles of the dog; any one could convince himself of this by observation. M. Duret replied that in the ventricular cavities and around the medulla oblongata, there existed in the cadaver, empty spaces, yet it should not be inferred from this that they existed in the living animal. The elementary laws of physics and physiology required that these cavities should be filled by a liquid. To establish the presence of a sub-arachnoidean fluid, M. Rochefontaine had placed the subject under very unfavorable experimental conditions; in thus opening freely

the cranium, and anæsthetizing the animal, he changed the intra-cranial arterial tension, consequently modifying the quantity, normally existing, of the sub-arachnoidean fluid. By reason of the opening into the cranium, an enormous turgescence of the brain was induced, displacing the fluid normally existing in the ventricles, and driving it into the sub-arachnoidean space. M. Duret proposed to further investigate this interesting and difficult question, and present his results at a subsequent meeting of the society.

Hygiene of Sight.—M. Javal made a statistical report upon certain alterations of vision in children, embracing a very large number of cases. In every case in which the vision is not absolutely good, an examination revealed astigmatism in the children, by correcting which, normal vision was established. At the school Mouge, where the lighting is excellent, M. Javal has found ten per cent. of the children astigmatic, but thinks it probable that they had become so previous to entering the school. The speaker then gave the reason why books printed on yellowish paper were less fatiguing to the eyes. Though the astigmatism was corrected, there was the error of chromatism which they had scarcely dreamed of combating. Yet a little reflection showed that this might be corrected or reduced to a minimum by the employment of mono-chromatic light, but as it was desirable to suppress the least possible amount of light consistent with the correction, it was advisable to suppress one or the other extremity of the spectrum. If the red end be eliminated, too much light is lost. The desired object is much more satisfactorily attained by absorption of the blue and violet rays, the resulting tint being a yellowish grey. Such is the true reason of the superiority of paper tinted as above for readers' and students' use.

Fatty Emboli in Fractures and Osseous Degenerations.—M. Déjerine said he had published the notes of two cases in November last, in which he had observed fatty emboli following osseous degenerations. Since that time he has had occasion to observe six others. In examining the lungs, he has each time very clearly established the existence of fatty emboli, proportioned in quantity to the extent and intensity of the osseous degeneration. He has also found, as stated by the authors, that the emboli were

less marked the longer the time which had elapsed between the traumatism and death. In two cases only, has he found fatty emboli in the liver and kidneys. He has not had occasion to observe a case in which it was general, as has been many times seen in Germany. M. Déjerine, moreover has made experiments upon fatty embolism in the laboratory of M. Vulpian, using dogs as subjects of his experiments. In varying the operative procedure, he has been able to produce fatty embolism in varying degrees in these animals, from the slightest to the most severe forms, such as observed in man after large wounds of the bones. The mode of procedure followed by the observer, consisted in production of simple fractures, without communication with the exterior, in which cases the fatty emboli of the lungs were very slight, and in some cases hardly perceptible. When, on the contrary, the marrow was implicated, in whole or in part, by the introduction of a foreign body into the medullary canal, the fatty embolism was very marked, and the fatty particles could be traced in the blood from the veins of the wounded member to the vessels of the lungs. If, instead of introducing an inert body such as a piece of iron, a substance such as a piece of laminaria digitalis be inserted, the embolism was exceedingly violent, the lungs being literally injected with fat. These observations confirm those of Bergmann and Halm. M. Déjerine remarked that the embolism produced by the introduction of pieces of laminaria into the medullary canal of the bone, was much more pronounced than that produced by other experimental procedures. It appeared to the speaker that the fatty embolism in man was probably successive to a rapidly developed osteo-myelitis, which by pressure from within and without, forced the fat into the osseous capillaries, and from there into the venous circulation. In the animals experimented upon, it is difficult to produce a veritable osteo-myelitis and we should not demand more from experimental pathology than it is able to give; but by introducing in the entire length of the medullary canal a piece of laminaria we produce a persistent irritation of the medulla, as well as an eccentric compression of the medullary canal. These experiments seemed to the speaker to confirm the theory already enunciated, of the pathology of fatty embolism, as in the experiments with the laminaria one

of the conditions, at least, was paramount, namely, that of tension, and as fatty embolism succeeded this tension, it was fair to infer that this was one of the essential elements in its production.

O. C. OLIVER.

HOTEL D'ORIENT PARIS, March 5, 1879.

ARTICLE XII.

SOCIETY OF BIOLOGY. March 1, 1879. President, M. Paul Bert.

The president communicated to the society the results of some of his experiments on the removal of one of the cerebral hemispheres. Four axolotls were shown, two white and two black, in each of which a cerebral hemisphere had been removed six months previously. These batrachians, living in the water, had not presented any circulatory trouble. The speaker had operated upon bats in a like manner, and with negative results. There were some curious points noticed on the axolotls, however. Immediately after the operation, the white axolotl became covered with black spots, the black axolotl also became very curiously mottled, and at the present time the pigment showed a strong tendency to disappear.

Contraction in Intra-ventricular Hæmorrhages and Injections of Liquids — M. Cassey showed that his experiments differed from those of M. Duret, communicated at a previous meeting, in many essential particulars. First, M. Duret wished to make the injection not in the ventricles, but in the sub-arachnoidean space, but in two instances the canula, introduced too deeply, penetrated the cerebral substance to the depth of several millimeters, and the liquid injected violently in the interior of the cerebral substance, forced its way through the hemisphere to the ventricles. M. Cassey, on the contrary, has injected coagulable liquids directly into the ventricles, by the aid of a canula introduced through the corpus callosum, at its uncovered portion, i.e., corresponding to the median fissure of the brain. Secondly, M. Duret has injected a considerable quantity of liquid, thus determining ecchymoses of

the ventricular surfaces. M. Cassey has never injected a quantity of liquid exceeding 10 to 20 grams, and has produced no lesion of the ventricular surfaces. Yet the animal has presented an intense and generalized contraction. Thirdly, M. Duret admits that the contraction is due to the excitation, by the injected liquid, of the flow of the fourth ventricle, and especially the corpora restiformia. M. Cassey rejects this theory, in explaining the contraction produced in his experiments, for in one very clearly marked case, the injected liquid coagulated in the middle and lateral ventricles, without having penetrated the fourth ventricle at all. M. Cassey thinks the contraction due to excitation of the subjacent excito-motor portions of the encephalon (internal capsule and cerebral peduncles) due to rapid compression by the walls of the middle and lateral ventricles. In like manner M. Cassey would explain the contraction in hæmorrhages limited to the lateral ventricles, not admitting the theory of M. Duret, which attributes the contraction in these cases to shock of the sub-arachnoid fluid, upon the floor of the fourth ventricle. In cases where the effused blood flowed into the fourth ventricle, the convulsions were no more frequent than in cases where the effusion was limited to the lateral ventricles.

In 20 cases of hæmorrhages into the lateral ventricles, in which the blood had flowed into the fourth ventricle, convulsive phenomena were observed in 8, while the 12 remaining cases showed none. O. C. OLIVER.

HOTEL D'ORIENT, PARIS, March 10, 1879.

THE annual meeting of the Association of American Medical Editors will be held at Atlanta, Ga., on Monday evening, May 5th, 1879. The annual address will be delivered by the President, Wm. Brodie, M.D., of Detroit. All editors of medical journals and publications are entitled to membership in the Association, and are cordially invited to be present and participate in the meeting. — F. H. DAVIS, M.D., *Secretary*, 65 East Randolph street, Chicago, Ill.

Domestic Correspondence.

ARTICLE XIII.

BOSTON LETTER.

Messrs. Editors:—Probably there is no city in the country in which surgeons and physicians are so unanimous in the use of ether as an anæsthetic, and so determined to have nothing to do with chloroform, as in Boston. It may be said that this condition of things is perfectly natural, Boston being the city which introduced ether to the profession. But I think this enmity to chloroform springs rather from the habitual conservatism of our physicians. They see that ether is a safe anæsthetic; they see that the administration of chloroform is attended with danger and therefore let it alone.

There are a very few exceptions in which our physicians give chloroform in confinement cases, but I cannot remember that I ever saw it used in the hospitals of this city. Boston surgeons do not relish waiting for the insensibility of an etherized patient any more than do the surgeons of other cities, but they prefer to wait rather than run risks. There are surgeons who do not seem to consider that life is of more value than time. Since the day when Dr. John Collins Warren performed the first operation upon an etherized patient—now thirty-three years ago—Boston surgeons have found ether good enough for their purposes. At the Massachusetts General Hospital the administration of ether has been reduced to a perfect system. The patients are etherized long enough in advance of the operation to preclude all waiting on the part of the surgeons. After the operation, unless their recovery from the ether intoxication be complete, they are not taken back into the wards, but are conveyed to the "recover-

ing rooms," which adjoin the amphitheater, and there remain until the fight and delirium have disappeared. This is an exceedingly wise arrangement, for the patients in the wards are thereby protected from the effects of fear or nervousness invariably caused by men who are half wild from the fumes of ether. Moreover, there is in this amphitheater an operating chair, a most ingenious affair, devised by Dr. H. J. Bigelow in 1854, by means of which an etherized patient is not only perfectly secured and incapable of movement during an operation, but if syncope come on, the patient's head can instantly be dropped below the level of the body merely by withdrawing a bolt. It was the necessity of having some way of accomplishing this sudden change of position which led Dr. Bigelow to invent the chair. It likewise enables the surgeon to place his patient in any desired position. By its means, too, much less assistance is required during operations, for the patient being powerless no men are needed to hold the limbs during the excitement of the etherization. A similar chair is now in use at the City Hospital; a third is the property of Dr. Carleton, of Connecticut; a fourth was procured for the New York Hospital, by Dr. Sands; a fifth copy was made for the Empress of Germany, who heard of it from Dom Pedro, who saw the chair while he was in Boston—the Empress sent for photographs of it in order that it might be used in hospitals in Germany in which she is greatly interested. It should be in every operating amphitheater in America, and can be ordered from Codman & Shurtleff, of this city. In connection with the use of ether at the Massachusetts General Hospital, I should mention that in one of the instrument cases in the amphitheater is the first sponge ever used for etherization, a souvenir of the original painless operation, by Dr. J. C. Warren in 1846. Naturally it is an interesting and precious relic. A few years ago Dr. B. Joy Jeffries, of this city, went to England with the purpose of demonstrating the superior safety of ether and of converting English surgeons to its use. In many cases he succeeded, but chloroform is still the common anæsthetic in that country, and we are constantly hearing of deaths which have been the result of its use. The fact that chloroform was introduced by a British physician—Simpson, of Edinburg, in 1847—may have some influence in

shutting out ether. But the protests against chloroform which appear from time to time in British journals indicate that Dr. Jefries' leaven is working. Fortunately, he took several cans of good American ether with him, otherwise, unless English ether is now of better quality than formerly, I fear his success would have been less striking. In 1872 I attended a confinement case in London, during which I administered twenty ounces of the best English ether I could obtain, yet could not for one moment make my patient fully insensible. Must I add that, notwithstanding Dr. Jeffries clearly stated the purpose for which he had brought it, the English Custom House authorities *obliged him to pay duty upon his American ether!* This was next to putting a premium upon narrow-mindedness. Many physicians in Great Britain and elsewhere will doubtless be influenced by Balfour's sturdy recommendation of chloroform in his recent work on "Diseases of the Heart." Balfour considers it the remedy *par excellence* in angina pectoris, and I know of one prominent Boston physician who thinks likewise. Balfour, however, literally staggers one by saying not only that "it is *perfectly safe*" but, if so arranged as to be inhaled only in small doses, that "*it is not even necessary for a medical* man to administer it." He thinks that before the patient can inhale a large quantity the bottle will fall from his hand. From a man so generally trustworthy as Balfour such advice is amazing. I find that if a physician has had the pleasure of bringing back to life one case of chloroform syncope, he is glad thereafter to confine himself to ether. I once had that experience, and it is a frightful one, which will never be repeated at my hands. In this country I suppose Prof. Gross, of Philadelphia, is our most vigorous defender of chloroform; although he has had some startling experiences; he will use no other anæsthetic. But in spite of his strong influence the majority of Philadelphia surgeons, one might say nearly every one of them, use ether and fear chloroform. Just now, going the rounds of the medical press, the conclusions of Vergely, of Bordeaux, are newly calling attention to chloroform. This gentleman concludes that heart-disease does not contra-indicate its use; that it is a sedative in this class of diseases; that it should be used with discretion. His last clause is the only sensible one of the three,

though the second, unfortunately, is but too true in a sense more sad than Vergely means to convey. He further thinks this agent is given too timidly and unsystematically in angina pectoris and affections characterized by dyspnœa and palpitation. When one considers the history of chloroform and the number of deaths it has caused and is causing, a feeling of strong indignation is the result of reading such advice. We can only hope it may not be followed. Need I apologize for this dissertation, the length of which has been quite involuntary? I cannot easily avoid being an assailant when I see chloroform extolled by such men as Balfour, Berkeley Hill and others as perfectly safe, "*safer*," says Hill, "*than ether*." It seems to me, too, that those who realize the dangers of chloroform narcosis are not sufficiently outspoken.

You are aware, perhaps, that a system of "intersecting sewers" is now being constructed in Boston. The cost will amount to millions but the necessity was great, for imperfect drainage was committing ravages in the best sections of the city. The city engineer says that drains and sewers are constantly being uncovered whose age and primitive character are surprising. Many of them were built for single houses and have been in existence since the early portion of the century. Their condition, in frequent instances, is shockingly bad. It will interest you to know what the new system of sewerage is and what it will probably accomplish, but this matter for the present may be kept in reserve. My reference to it now is merely preliminary to mention of the somewhat unexpected revelations of the books of our Board of Health. In view of our imperfect drainage, of general complaints, in certain winds, of the presence of sewer gas in house and atmosphere, in view, too, of the accepted theory that sewer poison is a common cause of typhoid fever, we naturally might look for a large death rate from that disease. I was, therefore, surprised to observe that 1370 cases of diphtheria were reported during the year 1878 and 450 deaths, while only 120 deaths were caused by typhoid fever. The question at once arises, may we not find that sewer emanations expose us to the greater danger of diphtheria more certainly than to typhoid fever? In some instances in this city, where the patients have been treated by prominent physicians, it has been discovered that the cause of fatal diphtheria

proceeded from imperfect soil pipes. Many isolated cases have left it impossible to deny that foul gases have been the cause of this dangerous disease. If it be true that the cases which occur in Boston are the result of foul air, we can only hope there may be more typhoid and less diphtheria until the day comes when good sewerage will relieve us from both. But I have also remarked that in Boston the death rate of diphtheria for 1878 was very low, viz., 30¼ per cent. It may, therefore, be hoped, since homœopaths call every cheesy follicle diphtheria, that of the 1,370 cases reported many, let us say hundreds, were not diphtheria at all, but only follicular sore throat or tonsillitis; 1,370 cases and only 450 deaths is not the usual proportion in true diphtheria. Of scarlet fever there have been comparatively few cases, and only 68 deaths by that disease were reported during the year 1878. Our Board of Health has been unceasing in its endeavors to enlighten the people in regard to the various forms of scarlet fever. In its circular which is habitually sent to families in which this disease is reported, there is the wise warning: "Scarlet fever, scarlatina, canker-rash and rash-fever are names of one and the same dangerous disease." Moreover, the circular strongly impresses the fact that scarlet fever resembles small-pox in its power to spread rapidly from person to person. The care and arrangement of the sick-room are clearly set forth, and very sensible directions are given in regard to the period of convalescence and disposition of bedding and clothing which have been worn during the illness. The proper manner of purifying the room is likewise explained, and finally the advice is given that in case of death the funeral services should be strictly private and that the body should not be exposed to view.

A few weeks ago one of these useful and sensible circulars was returned to our Board of Health by a homœopath who had found it at the house of a patient ill from scarlet fever. The physician had enclosed the sections relating to the convalescent period, care of clothing and room, and the conduct of funerals, in brackets, with the marginal note, "Nonsense"! He had endorsed the circular as follows: "Sent to a patient of the undersigned. I will look out for the cleansing. C. F. N." This astute gentleman, I regret to say, is a graduate of the Harvard school; but since he made use of that school merely to give himself some

preparation for practice, meanwhile fully intending to be a homœopath in name, it can easily be seen that even as a student he made the discovery that he knew more than either his teachers or his books, and this discovery, evidently, is the guide of his life. It is such men as he who render the control of scarlet fever difficult, and who aid in spreading the contagion.

Another extremely wise step has been taken by our Board of Health. When it becomes known at headquarters that a person is ill of scarlet fever, the Board at once excludes from school every child in the family in which the disease has occurred. The enforced absence (save in exceptional cases) continues four weeks from the beginning of the attack, and when the scholar is re-admitted to the schoolroom, it must be on the certificate of a physician that the required time has passed. Such a course has been adopted because the Board of Health realizes that perfect quarantine is the only means by which scarlet fever can be stamped out. Of course the quarantine enforced upon families is not perfect, and for obvious reasons. But in his earnestness and thoroughness, Dr. Durgin, the genial chairman of the Board, if permitted, would have every house in which scarlet fever existed guarded by a policeman whose duty it should be to see that no one but the physician entered or left it until quarantine was removed. Supplies of food would be left at the door. To the half-hearted neutralists who, upon the whole, think scarlet fever is not particularly contagious, such stringent regulations would appear excessive, but it is a sad truth that lives are lost every year by the criminal negligence of those who come in contact with scarlet fever. This applies to physicians as well as laymen. The fixed rule of every physician should be to visit his scarlet fever patients last of all. Upon reaching his house he should take a bath and change his outer garments, hanging in the open air for several hours those he has just put off. He should likewise quarantine himself in his office, and take his meals and sleep there until he has done with scarlet fever. When a physician falls into an error of judgment, his mistakes should always be made upon the safe side, especially when questions arise concerning the proper care of contagious affections and the protection of those who are exposed to them. * *

BOSTON, April, 1879.

ARTICLE XIV.

LETTER FROM PHILADELPHIA.

Messrs. Editors: — Medical organizations were never in a more favorable and flourishing condition in Philadelphia than they are at present. In addition to our County Medical Society, which was organized in 1848, and recently incorporated (1877), we have the Pathological Society, the Obstetrical Society, the College of Physicians, all well attended, and there are some evidences of a new organization, which shall be devoted entirely to surgery. Not long ago a resolution was passed by the County Medical Society, authorizing the formation of sections by its members, for the consideration and cultivation of especial branches; that is to say, if a dozen members interested in pathology, microscopy, laryngology, or any kindred topic, were to apply to the Society for the establishment of a section on pathology, for instance, to be called the Pathological Section of the Philadelphia County Medical Society, permission would be granted, with the understanding that it should involve no expense to the Society. Whether the surgeons who are moving in the matter will avail themselves of this or not is yet to be determined. The College of Physicians owns one of the finest medical libraries in America, deposited in a fire-proof building, in which there are several fine rooms for holding meetings, and it is in this place that the previously named societies assemble. In addition to these, there are a number of smaller medical societies, for the convenience of physicians in distant parts of the city, who are unable to attend the County Medical Society; some of them are incorporated, like the West Philadelphia Book Club, which meets regularly as a medical society, but others are simply small medical associations, existing in almost all the outlying sections of the city, and which should be really branches of the County Medical, as their objects and methods are identical. If we include scientific associations, which are largely made up of physicians, like our Academy of Natural Sciences, with its sections upon biology, and microscopy, anthropology and comparative

anatomy, and other topics cognate to medical science, it may be inferred, and correctly, that our physicians are intellectually active, and socially harmonious. It is true that the profession in Philadelphia is annoyed to a less degree by irregulars and charlatans than perhaps any other large city. One reason for this, and probably one that has acted more directly than any other to bring about this desirable state of affairs, is the fact that quacks are systematically ignored, both professionally and socially. They are treated with uniform politeness, but kept at a distance, so that no discussion or dispute may give them the opportunity of claiming popular sympathy by raising the cry of persecution. We have a board of censors to report upon all applicants for admission to the County Medical Society, but even their recommendation will not secure a man's election at the balloting. To this board are also referred all charges against members for unprofessional conduct, but no member has yet been excluded from the Society simply because he has adopted any exclusive practice; in other words, he is not hustled out because he is a homœopath, but he generally finds that the atmosphere is less congenial, and either sends in his resignation or is dropped for non-payment of dues. In this way he is deprived of a gratuitous advertisement in the daily papers as a first-water martyr, and instead of winning popular sympathy he has no notice taken of him whatever, and he retires into obscuritv. Homœopathy is drawing its last breath with us, and it is now nearly time for a new "ism" or "pathy." We should really not be surprised some morning to hear, with a great flourish of trumpets, that a brand-new medical practice has come to town, known as "electricism," or something similar, that cures all diseases without medicine, not by smelling the bottle, as recommended by Hahnemann, but by the searching and eliminating influence, say, of mystic magnetism. All other practice, of course, will at once become effete, and be stigmatized as old, or allopathic, or some other equally vague and correspondingly dreadful term.

To turn to a more congenial topic, we may refer briefly to the prospects of higher medical education. The University of Pennsylvania, having secured a moderate endowment for this purpose, has adopted a three years' graded course, and hopes soon to

establish a preliminary examination. This movement has received the endorsement of the State Medical Society, but has not met the response it deserved from the profession; although there is not the slightest doubt of its ultimate success. The Jefferson College, having a very conservative management, still clings to the old methods of lecturing, and although recommending a three years' course, it is not made an essential prerequisite for graduation. The faculty, probably without exception, are in favor of adopting a graded course, and extending it to at least three years, Prof. Gross is full of the idea, as will be seen by his action at the Convention of Medical Colleges in Atlanta.

The compliment of a public dinner, which was given to Prof. Gross by his surgical friends, at the St. George hotel, Philadelphia, April 10, 1879, in commemoration of his completing his fifty-first year in the profession, was largely attended by prominent surgeons from all parts of the country, and was a grand success.

In regard to practice and operations there is much that is worthy of note: Dr. John H. Brinton operated upon two cases of stone in the bladder by the lateral operation, recently, at the clinic of the Jefferson Medical College Hospital. One patient, a boy of nine years with a 3¼ ounce urate calculus, made a good recovery; the other, a man of 56 years, died on the third day from exhaustion. There was some difficulty in extracting the stone in the latter case, as it was quite large, though soft and phosphatic, and had to be removed in fragments. It weighed four ounces and six drachms, and the operation was therefore unusually prolonged. In a case of a stone weighing over five ounces at the Woman's Hospital, colpo-cystotomy was recently performed, and the calculus perforated with a drill run by Bonwitt's dental engine, the stone was then easily crushed and removed. This patient died shortly afterward of abcess of the kindeys, but it was stated that the bladder, at the post mortem, was found to be in good condition.

Dr. John B. Roberts recently read a paper on paracentesis of the pericardium before the County Medical Society, and stated that he had collected nearly fifty cases, and the percentage of recoveries was nearly 47 per cent. He considers the operation

perfectly justifiable, and advocates the use of Fitch's dome-trocar, with the aspirator, the fifth intercostal space being selected at a point one and a half inches to the left of the line of the mid sternum.

Hot Water as a Parturifacient, was the title of a paper read at the same meeting by Dr. Albert H. Smith, who has had large experience, and states that hot water injections should be used in every case of obstetrics. In the first stage of labor, it stimulates the uterus, and facilitates delivery; after parturition, it cleanses the canal and vagina, causes prompt, firm and persistent uterine contraction, and is the best agent for checking post-partum hæmorrhage known, used at a temperature of 46° to 49°, and thrown *not into the uterus, but against the cervix*, with a Davidson syringe, or a tube and funnel. After delivery, he had found hot water injections to completely relieve after-pains. He had also used it in ordinary menorrhagia with great satisfaction, and in cases of labor when he had reason to anticipate flooding, he was in the habit of using it in the first stage as a preventive, and with astonishing success.

The State legislature has again failed to pass the bill authorizing the formation of a State Board of Health.

With the exception of an epidemic of influenza in February and March, the city has been unusually and distressingly healthy for nearly a year; during 1878, there was not a single death from small-pox in Philadelphia. W.

PHILADELPHIA, April, 1879.

ARTICLE XV.

BATTERY HINT.

No one who has used to any extent the Galvanic Battery, either for the purpose of cautery or for the general effect to be produced on the constitution, will ignore the value of any suggestion by which the constancy of the current can be improved.

The testimony of electricians on this subject is well illustrated by the fact that the relative constancy of the current of any

battery is an item of great importance in the estimation of the value of said battery.

Again, any device that will dispense with the necessity of amalgamating the zincs will be, to the majority of physicians, a great source of satisfaction.

I desire to make more public a device which will greatly increase the constancy of the current, and entirely dispense with the necessity of re-amalgamating the zincs. The idea is not original with me, but in the course of conversation with several who are very familiar with the use of the battery, I have found it so little known, that I have thought it a sufficient excuse for publication. The device consists simply in the addition to the ordinary battery-fluid of a certain quantity of the bisulphate of mercury. The amount given by Gaiffe of Paris, to whom I am indebted for the idea, is four or five grams of the bisulphate of mercury to the liter of the regular sulphuric acid and bichromate fluid. Of course it is necessary to amalgamate the zincs before commencing its use. They will then remain amalgamated. I have used this for some time, and had the pleasure of recommending it to another physician in the city. The marked improvement which he has obtained in the constancy of his current and the satisfaction which he feels in not having to re-amalgamate his zincs, inspires me to affirm that any physician who once adopts this modification, will continue its use.

R. TILLEY, M.D.

CHICAGO, April, 1879.

MEDICAL gentlemen in this country who have contributed to the literature of the throat, voice, etc., are requested to send copies of their articles, or at least the titles, to Dr. Louis Elsberg, 614 Fifth avenue, New York.

SUBSCRIBERS of this journal will confer a great favor by sending to Rush Medical College any of its announcements of a date previous to 1850; also those for the years 1854–55, 1861–62, and for 1875–76.

Reviews and Book Notices.

ARTICLE XVI.

A PRACTICAL TREATISE ON DISEASES OF THE SKIN. By Louis A. Duhring, M.D., Professor of Diseases of the Skin in the Hospital of the University of Pennsylvania, etc., etc. Philadelphia: J. B. Lippincott & Co., 1877.

AN ATLAS OF SKIN DISEASES, By Louis A. Duhring, M.D., Professor of Skin Diseases in the Hospital of the University of Pennsylvania, etc. Part I, Eczema (Erythematosum), Psoriasis, Lupus Erythematosus, Syphiloderma (Pustulosum). Part II, Acne Rosacea, Ichthyosis (Simplex), Tinea Versicolor, Sycosis (Non-Parasitica). Part III, Eczema (Squamosum), Syphiloderma (Erythematosum), Purpura (Simplex), Syphiloderma, (Papulosum et Pustulosum). Part IV, Vitiligo, Alopecia Areata, Tinea Favosa, Eczema (Rubrum).

A HANDBOOK OF THE DIAGNOSIS OF SKIN DISEASES. By Robert Liveing, A.M. and M.D., Cantab., F.R.C.P., London, etc., etc.: New York, William Wood & Co., publishers, 1879.

NOTES ON THE TREATMENT OF SKIN DISEASES. By the Same. Fourth Edition, revised and enlarged. New York: William Wood & Co., publishers, 1879.

It is usually the part of the critic and reviewer to pronounce, in advance of the public, upon the merits or demerits of the work submitted to him. It is true that his decision, one way or the other, may have but little to do with the success of an author, as compared with that eagerness for everything possessing real value, which is, sooner or later, sure to manifest itself on the part of the reading public. Still the critic has usually the im-

mense advantage of the master of ceremonies at the formal introduction.

In the present instance, this usual order is reversed. The book before us has been long since presented to the public, and passed upon without reserve by the members of the medical profession. Fortuitous circumstances, which it is not here necessary to describe, have thus far prevented us from doing justice, in the pages of this journal, to the book itself, or to its considerately patient author and publishers. At this late date, it merely remains for us to record that seal which has been already set upon Duhring's treatise, by worthier and more competent judges.

Needless to say, here, that that seal has been one of approval. We might well, at this point, conclude all that remains to be said upon the subject, by quoting the recorded verdict of the press, that this is "the best treatise on diseases of the skin in the English language." But lest this should be thought the exaggeration of personal friendship or favoritism, we are ready to give the grounds for our opinion.

Every work of art of high order, is so intrinsically good that its excellences have to be ascertained by analysis. The volume before us is fully as valuable for what it is not, as for what it is.

We remark, then, that it is an original treatise and neither a compilation of previously published sketches nor a series of clinical observations, nor an argument upon one side of a disputed question, nor yet an ingenious mosaic of the opinions and writings of other men. It is a systematic treatise, without either the diffuseness or incongruity of so many of its predecessors. It is a carefully written book, without that absurdity of style, half conversational—half declamatory, which is so offensively prominent in an English author upon the same subject, whose book has attained some prominence in this country. Lastly, it is preeminently a book for the student and the practitioner. From it they can acquire the elementary as well as the practical and the scientific knowledge, that are essential to the successful recognition and treatment of diseases of the skin.

Dedicated to the eminent Hebra, of Vienna, we are prepared to find that the work of our author largely represents the views of the German school, both as to the anatomico-pathological

classification of the diseases of the skin, and as to the mode of their treatment. In both respects, however, the modifications here effected are on the side of a conservative recognition of those diseases which are unquestionably of constitutional origin, while the extreme opinions of the French and a few English and American authors, who hold to the existence of "dartres" and "rheumides," and who look upon eczema and psoriasis as evidence of a diathetic vice, are unreservedly rejected.

The clearness and simplicity resulting from the embodiment in these pages of only those facts which are capable of clinical demonstration, give them a charm and value which constitute the basis for the actual success of the book. Take, for example, the subject of impetigo:—

Willan and Bateman were early in the dust and confusion about this term. What time they confounded impetigo with porrigo, and the reverse, they described six varieties of each disease. Alibert, as is well known, in his early classification described the disease, first, in connection with acne, as a "pustular dartre," afterward as a "pustular crusted psoride"; and in his later classification it reappears under successive titles, as an "eczematosis," a "phlyzacion," a "melitagra," and a "tinea." Cazenave and Schedel upon this point say:

"The eruption (impetigo) is pustular from the beginning, and the pustules are small, confluent, and very slightly raised above the level of the skin. They burst between thirty-six and seventy-two hours from their formation, and discharge a purulent fluid. The heat, itching and tension are then increased. The fluid is abundantly discharged by numerous small orifices; it soon dries up, and forms thickish, yellow, friable, semi-transparent incrustations, which have some resemblance to the gummy exudations of certain trees, or to layers of concrete honey."

There are few men, even with the most superficial knowledge of dermatology, who will fail to recognize in this description the features characteristic of a well-marked form of eczema. And yet they do not "do these things better in France" to-day. Thirty years after this paragraph was penned, Guibout writes in Paris as follows (1876):

"Impetigo is characterized by the existence of small, short-

lived fugacious, acuminate, confluent pustules, seated upon a more or less extensive erythematous surface, secreting a pus which continues to be formed after their disappearance, by ulcerated surfaces which succeed them, and which conclude by forming moist, yellow, projecting, irregular crusts, of the color of honey or marmalade of apricots."

Hebra, as is known, entirely rejects the term, impetigo, from his classification of diseases of the skin. In a chapter entitled "pustular eruptions," he gives fully his reasons for this course, and, if he had never done anything else for dermatology, he would have deserved the honor he has been accorded, for his masterly treatment of this subject alone. He recognizes the fact that the pustule is a resultant of an inflammatory process; that the inflammatory process we call, eczema, may result in the formation of a pustule, or a puriform discharge; and that the existence of a pustule upon the skin, is no evidence whatever, *per se*, of the existence of any special disease, since it may be the indirect result of the bite of a louse, or of the external application of croton oil. In his own language: "the pustular affections of the skin described by authors, under the names, impetigo, ecthyma, porrigo, achor, etc., have no existence as independent diseases."

We have made this short excursion merely for the purpose of showing how simply, and yet how admirably, one author leads us straight through this forest of perplexities, by a sure path. Under the head of "pustular exudations," we find the word, impetigo, in Duhring's classification; and the disease in proper place, is thus defined: "Impetigo is an acute, exudative disease, characterized by one or more pea or finger-nail sized, discrete, rounded and elevated, firm pustules, unattended by itching, occurring, for the most part, in children." The four pages of descriptive text which follow, portray in detail a disease whose identity is demonstrable by daily clinical experience, and which is assuredly very different from eczema rubrum or eczema pustulosum. The lesions are pustular at the outset, have a slight areola, are not umbilicated, are constituted of the entire thickness of the epidermis, *have no disposition to rupture*, are discrete, vary in number from a dozen to more, are not attended with either itching or burning, as a

rule, and their contents may undergo reabsorption or crusting. Surely the most casual reader of these lines, can here follow the keen and practised eye of a master, who has the courage to depart from under the shadow of the high authority of the great Vienna dermatologist without wandering into the mazes and mysticisms of the French school.

In order to make our picture more complete, let us turn for a moment to Duhring's description of eczema pustulosum, where we shall find a history of the exact lesions, whose shadowy ghosts have been flitting for years in the pages of Willan and Bateman, Cazenave and Schedel, Biett, Alibert, Guibout, and many others. The text is as follows:

"The pustules are formed in the same manner as the vesicles which have been described, except that there is not the same amount of swelling, heat and itching present. The pustules are apt to be somewhat larger than the vesicles, and are, as a rule, firmer in consistence. They develop as pustules, or, as is often observed, they become pustules from vesicles; again, both lesions may exist at the same time, side by side, upon one individual. A strict line cannot be drawn between vesicles and pustules. As in the case of the vesicles, the pustules burst, and are replaced by thick, bulky, greenish, yellow or brownish crusts, which are apt to cover the skin completely. If this process continue, they accumulate in quantity, causing great disfigurement. They desiccate quickly, and become friable, and finally fall off or crumble away."

And thus might we discourse of each of the topics in the treatise. In connection with each is to be noted that same exactness of definition which results from distinctness of conception, the same avoidance of ambiguity and unsettled or disputed questions, the same straightforward progress over a well-built roadway, upon which the traveler passes without dreaming of the wrecked theories which are lying at the bottom.

The style of the author is conspicuously clear and pleasant, for the same scholarly care which has been made evident in his definitions, is here to be recognized. The same is true of the typographical appearance of the work, which, as is well understood, is in this respect quite singular. During the months which have

elapsed since they were first given to the profession, we have frequently consulted these pages, and have never yet detected an error in typography or syntax. The plates are well drawn, and the publishers have well executed their part in the production of the treatise.

We conclude, as we began, by expressing our conviction that this is the best treatise on diseases of the skin in the English language, judged from every standpoint. We are even willing to say more than this. Well would it be for the medical literature of our land, if the standard of even its best representatives might never be less than that evidently upheld by our young and gifted author.

DR. DUHRING'S ATLAS OF SKIN DISEASES is a fit companion of the other work of his hand. We have, upon another occasion, referred in these pages to the excellence of these plates, and can here no more than iterate our former praises.

The faithfulness with which the disease is, in each instance, portrayed, is due to no fortuitous circumstances. Like every other worthy accomplishment, it is the fruit of the author's careful and conscientious labor. From the selection of the individual case whose lesions are to be reproduced, to the work on the canvas (where the author frequently applies the finishing touches with his own hand), to the multiplication of the stones (the lithographer having a *carte blanche* order to employ as many as are necessary in order to reproduce exactly the different colors of the original picture), and even to the actual printing of the final impressions, each and every step is under the same watchful supervision and superintendence. It is in consequence of this care and expenditure of time and money, that the plates are equal to any that have yet been published.

The explanatory text accompanying each, is a clear and sufficiently brief exposition of the case selected for illustration, and the treatment pursued, with its results.

The only adverse criticism we have yet seen of this work may be adduced in support of its extraordinary value. An English writer, in reviewing Dr. Duhring's atlas, complained that, while the author had ostensibly undertaken to represent distinctively

American types of cutaneous disease, his plates yet represented quite exactly the individuals effected with eczema, acne, etc., who were to be encountered every day among the patients and out-patients of the London hospitals. Surely no higher commendation than this could be pronounced. While it may be true that the prurigo, xeroderma, pityriasis rubra, lichen scrofolosus, and some other of the diseases seen in the Vienna wards, are rare in America, it is equally probable that the disorders of the skin observed in the two great English-speaking countries, are more similar than those of any other two widely separated people.

As the stones from which these admirable plates are printed, are to be eventually destroyed, it is evident that the value of this atlas will increase with each year.

DR. LIVEING'S SMALL VOLUMES are sufficiently compact to be stowed into the pocket of the student as he goes through the wards of a hospital, or attends a dermatological clinic. The aim of the author has been, "to call attention to the peculiarities and distinctive points which enable us to form a sound and rapid diagnosis." It is a question with us, however, whether a "rapid diagnosis," can be generally considered "sound," in actual practice. And again, has not he who is capable of making a sound and rapid diagnosis, usually advanced far beyond the teachings of the manuals of this class; while the student confronted with his first case of skin disease, is usually incapable of making any diagnosis whatever?

Books of this sort remind us ever of the doll-houses seen in the windows of the toy-shops. As one inspects them, he finds they are thoroughly furnished in all particulars. Each article too, is in its right place. Everything requisite for the *ménage* is there in miniature. The only objection to the whole, is that it is *too small to be practically useful.*

We remark, however, that Dr. Liveing's books exhibit a commendable familiarity with the subjects under discussion, a familiarity with the writings of even American authors, which has until lately, been rarely noted among our English cousins. The little volumes will prove popular with that class of practitioners, who desire to find their literature of this subject compressed in the smallest possible compass. J. N. H.

ARTICLE XVII.—MEDICAL AND SURGICAL ELECTRICITY. By Beard and Rockwell. William Wood, & Co., 1878.

There is probably no American work on electricity that has received the approval of the profession to such an extent as has this work. In the first edition of this work there were faults which were open to severe criticism, but most of which have been corrected in this new edition. New chapters have been added, and the whole work has been so thoroughly revised, that the physician who employs electricity in the treatment of disease can ill afford to be without it. The work is divided into the following sections: Electro-physics, Electro-physiology, Electro-therapeutics and Electro-surgery.

Under the first division the physics of electricity are given as exhaustively as any medical man would require. On page 2, this statement is made: "Electricity is manifested in three general forms: *magnetism*, *statical* or *frictional* or *Franklinic* electricity, and *galvanism* or *voltaic* or *dynamical* electricity." On page 34 it is stated that: "If we start with magnetism, we find that it produces electricity, and through electricity, heat, chemical action and light." * * * "If we start with electricity, we find that it produces magnetism, heat, light, chemical action and motion." In the first statement, electricity and magnetism are held to be one and the same force, or rather that magnetism is a form or manifestation of electricity. In the second, it is reasonable to infer from the text, that they are held to be different forces, just as light and heat are different. Although electricity and magnetism are more nearly co-related than the other forces, and have much in common, we are not inclined to accept these forces as being one and the same on the evidence already adduced; notwithstanding some eminent physicists think the time is not far distant when they will be proven to be one.

The statement: "The popular notion that large cells have a therapeutic advantage over small cells by sending a larger quantity of electricity through the body, is, in the light of Ohm's law, as well as in the light of experience, erroneous," is well worth the attention of physicians.

Beard and Rockwell do not stand alone in this statement.

Poore—one of the more recent English authors—makes a similar assertion.

They also state that: "It follows that the dose of an electrical application cannot be accurately described by stating the number of cells and the length of the sitting." "Supposing, now, that we are treating a patient locally or centrally by the galvanic current, and we desire to transfer the patient to another physician; we inform the physician to whom the transfer is made, that we are treating the patient with ten cells for ten minutes, and we desire that he should continue to give the same dose. * * * In our very attempt to be accurate we stumble into gross inaccuracy. Had we left the whole matter to the judgment of the physician, with some general suggestions as to the susceptibility of the patient, we should have come far nearer the truth." The fallacy this assertion points out and attempts to correct, is a fallacy that physicians little acquainted with the application of electricty are apt to take up, and is one that all thinking electro-therapeutists have many times demonstrated, to their own satisfaction, to be as untrue as our authors make it. Beard and Rockwell insist with equal truth that the efficacy of an electrical treatment depends as much or more on the mode of administration as on the dose of electricity administered.

The authors lay great stress on the necessity of a complete and thorough knowledge of the construction of the apparatus as well as the chemistry of the battery—a fact well worthy the attention of all who employ electricity.

Electro-physiology is also very fully treated of, and cannot fail to be of interest and benefit.

Under the head of electro-therapeutics, the history of electrical applications, electro-diagnosis, the apparatus for therapeutic use, and the treatment of disease, are given.

This important division occupies more than one-half of the volume. Various cases from practice are given to illustrate the modes of treatment in individual cases. A full and exhaustive review of all of the scientific methods of electrical treatment is also given.

Among the many excellent suggestions found in the chapter on "General suggestions," we cull the following: "Electricity is

a powerful *stimulating sedative tonic.*" "The old notion that electricity was merely a stimulant aided in forming in the professional mind another very gross error, that in active inflammations electricity is contra-indicated. Experience proves every day that the sedative effects of electricity are exceedingly grateful even in the acute stages of sprains and diseased joints." "The best results of electrical treatment are usually obtained with mild currents," and "Even at this advanced stage of electro-therapeutics, it seems to be necessary to constantly warn the profession against indiscriminately intrusting the details of electrical applications to the nurses, friends of patients, and patients themselves. Having just rescued this department from the hands of the laity, and given it a position among men of science, it seems strange that those physicians who are familiar with the subject, should even now use their influence to return it to the people at whose hands it formerly suffered so much; to restore it to the captivity of prejudice and ignorance." The limits of this review warn us that we have made as full extracts as would be proper, and those who wish farther light on the subject must read the book for themselves.

In this edition is introduced a chapter on "central galvanization"—a most valuable method of employing galvanic electricity in certain forms of nerve-exhaustion, skin diseases, etc.

The section on Electro-surgery treats of electrolysis and the galvano-cautery.

In reading this book, we have found many facts stated, which every physician, who has had a large experience with electricity, has discovered, and which he may think, as we did, were unknown until we read the statement of facts in these pages. There is probably no work in the English language, which deals with this subject, that covers so much ground and is so free from error as is this work. It is thus fitted in every respect to be a standard work on medical electricity.

Before leaving the subject, we can but in justice refer to some of the new methods of electrical treatment and of electro-physics as related to physiology and therapeutics, which these authors were the first to present to the medical profession. They have explained Ohm's law in reference to physiology and therapeutics,

have originated "general faradization," "central galvanization," have shown the efficacy of the galvanic current in the treatment of skin diseases, and in electro-surgery of that method known as "electrolysis of the base."

P. S. H.

ARTICLE XVIII. — ATLAS OF DISEASES OF THE MEMBRANA TYMPANI. By H. Macnaughton Jones, M.D., etc. Philadelphia: Lindsay & Blakiston, 1878; Chicago: Jansen, McClurg & Co.

This atlas, the author tells us, is intended as an accompaniment to his treatise on Aural Surgery, and the description of the diseases illustrated is, with some slight modifications, taken from that work. The atlas contains six chromo-lithographic plates of nine figures each, intended to illustrate the membrana tympani and some of its diseases and two plates, one of four and the other of five drawings of diseases of the external ear.

Were we to judge of the merits of this work from the author's own estimate of it, as expressed in his really gushing preface, we certainly should have little to criticise. The great diversity of appearance that the membrana tympani may present in each of the affections involving this structure, renders it difficult to say whether the drawings of the diseased conditions here presented, are faithful representations or not. But the author has given us a drawing of a normal membrane (fig. 6), and this should be a standard by which to estimate the value of the other drawings. Let us examine it. According to the author's own description, "the healthy membrana tympani varies in color from a 'pearl' or 'neutral gray,' to a yellowish white, or at times even an ivory white." His drawing of the normal membrane is neither of these shades, but a light blue. If the drawing is intended for the left membrane, the long diameter is shown as being in the direction backwards and downwards. The handle of the malleus appears as occupying the middle third of the long diameter. What we suppose is intended to represent the short process of the malleus, is about as far from the anterior and upper edge of the membrane as the tip of the malleus is from the posterior and lower edge. No trace of the anterior ligament of the malleus is shown. We are glad the author has told us that

figure 6 represents a normal membrane, for we certainly would not have recognized it as such.

Fig. 31, "Old Eustachian case. Membrane very white, etc." If the membrane in this figure is white, then we must be color-blind, for it does not appear so to us.

Fig. 55, an abscess in external meatus. Fig. 56, Polypus protruding from meatus. It would be difficult to tell from the drawings which is the abscess and which the polypus.

The chromo-lithographs may do credit to artists in that line in Cork, where according to the author, there was the first attempt to lithograph drawings. In this country where the chromo is offered as a premium or inducement to purchase anything, from a pound of tea to a corner lot, the art has made greater progress, and our standard of creditable work is much higher. An atlas of aural diseases, is to the student of these diseases, what the map of a country is to the student of the geography of that country. It aids him if correct, but confuses and misleads him if incorrect. In our opinion the work before us comes under the latter clause. W. T. M.

ARTICLE XIX. — DISEASES OF THE BLADDER AND URETHRA IN WOMEN. By Alexander J. C. Skeene, M.D., Professor of the Diseases of Women in the Long Island College Hospital; Fellow of the American Gynæcological Society; Corresponding Member of the Gynæcological Society of Boston; Member of the Medical Society of the County of Kings, and of the Obstetrical Society of New York. New York: Wm. Wood & Co., 1878; pp. 375.

The author divides this book into eight chapters, their subjects being as follows:

Chapter I.—Anatomy of the Bladder and Urethra, and their Malformations.

Chapter II.—Functional Diseases of the Bladder. Irritability. Paresis. Ischuria. Enuresis. Disorders due to Diseases of other Pelvic Organs. Disorders from Anomalies of Form and Position of Bladder. Extroversion through the Urethra.

Chapter III.—Organic Diseases of Bladder. Urinary Analysis and Exploration of Bladder. Hyperæmia. Hæmorrhage.

Chapter IV.—Cystitis, Sub-acute, Chronic, Catarrhal, Interstitial, Croupous, Diphtheritic, Gonorrhœal, and Peri and Epi-Cystitis. Etiology, Pathology and Symptomatology.

Chapter V.—Treatment of Cystitis. Croupous and Diphtheritic Cystitis. Cystitis with Epidermoid Concrement. Vesico-Urethral Fissure.

Chapter VI.—Neoplasms, Cysts, Tubercle and Carcinoma of the Bladder. Foreign Bodies. Hypertrophy and Atrophy and their Etiology, Pathology, Symptomatology and Treatment.

Chapter VII.—Urethral Diseases. Neuroses. Urethritis, Acute, Chronic and Gonorrhœal, Circumscribed and Sub-acute. Neoplasms. Vascular Tumors. Areolar, Epithelial and Compound Neoplasms and their Symptoms, Diagnosis, Etiology, Prognosis and Treatment.

Chapter VIII.—Urethral Dilatations and Dislocations. Prolapsus of the Mucous Membrane. Foreign Bodies in Urethra. Stricture. Incomplete Fistula in Urethra.

We can heartily commend this work to physicians. A medical library is not complete without it, because it seems to be the best work on the subjects treated, now before the profession.

J. H. E.

ARTICLE XX.—ON THE SURGERY OF THE FACE. By Francis Mason, F.R.C.S., Surgeon and Lecturer on Anatomy at St. Thomas' Hospital, etc. With one hundred illustrations. Philadelphia: Lindsay, Blakiston & Co., 1879. Chicago: Jansen, McClurg & Co., pp. 170; price $2.25.

This volume comprises the three Lettsomian lectures delivered by the author in the early part of last year, and at the time published in the *London Lancet*.

The first lecture is devoted to the diseases, the second to injuries, and the third to the deformities of the face.

We cannot expect that this subject could be exhausted in three lectures, nor had the lecturer any such object in view. He rather intended to give a brief review of the whole field; but his vast experience lends to every page the attractions of a mature judgment. We will content ourselves with a single quotation in order to give our readers an idea of the author's style of writing.

Speaking of the operation of hare-lip, he condenses volumes of instruction on plastic surgery in the following remarks (p. 102): "The hare-lip pin with the twisted suture, is commonly employed to bring the edges together, but, without discarding this method of approximating the parts, I feel sure that the usual interrupted suture of silk may in most cases be employed with great advantage, and, I believe, with certain precautions, it is in many instances preferable; but whether the twisted or interrupted suture be used, the success of the operation mainly depends, first, on the soft parts being thoroughly freed from the subjacent bone; secondly, on the edges of the fissure being so pared that a good, broad, raw surface is left; and thirdly, on the patient being incessantly watched for three or four days by a skillful nurse, who should support the newly united surfaces by making continuous but gentle pressure on each cheek. I have little confidence in the use of mechanical appliances *after* the operation; for, in nursing the child, they are apt to shift their place, and often do more harm than good. They are, however, invaluable as aids in bringing the two superior maxillæ together if worn *before* operative procedure is undertaken. Again, strapping is of especial service before the operation, but afterwards it cannot be with safety solely relied on."

The context is profusely illustrated, and a very complete index renders the reference to any subject of its contents an easy matter.

F. C. H.

ARTICLE XXI.—SORE THROAT, ITS NATURE, VARIETIES AND TREATMENT; including the Connection between Affections of the Throat and other diseases. By Prosser James, M.D., M.R.C.P., Lecturer on Materia Medica and Therapeutics at the London Hospital; Physician to the Hospital for Diseases of the Throat; late Physician to the North London Consumption Hospital. Third edition. Lindsay & Blakiston, Phila.

This is a small book of about three hundred pages, by the author of the little work on the use of the laryngoscope, which was so favorably spoken of in these pages a few months since. The first edition was published in 1860, and it was at that time,

and continued for about three years to be the only English book on the laryngoscope.

The subjects treated of are handled in a concise and lucid manner, which renders the book especially valuable to those physicians who have not the time to make themselves thoroughly familiar with laryngoscopy. The first chapter is devoted to a consideration of the nature and varieties of sore throat; the second to diagnosis of throat affections with the aid of the laryngoscope, and the third to the general therapeutics adapted to this disease. Following them are chapters on inflamed, ulcerated, follicular, aphthous and fungous sore throat. Also chapters on the soft palate, tonsils, pharynx, larynx, laryngeal phthisis, etc., etc. The book contains twelve colored illustrations of diseases of the larynx, and several wood cuts which illustrate the use of the laryngoscope.

The praise we gave the little work on the use of the laryngoscope would apply equally well to this book, but the criticisms on the letter press of the former are fortunately not deserved by this; though we are still left to regret that a book so well written should be illustrated by such poor cuts, however, as we do not expect the exhibition of very high art by the wood engraver, we feel justified in highly recommending the work; for although the cuts are rough, they answer fairly the intended purpose.

E. F. I.

ARTICLE XXII.—A TREATISE ON THE SCIENCE AND PRACTICE OF MIDWIFERY. By W. S. Playfair, M.D., F.R.P. With notes and illustrations by Robert P. Harris, M.D. Second Amer. from second London Ed. Phil.: H. C. Lea, 1878.

The success of this work, requiring a second edition so soon after the issue of a very large first, is proof sufficient of a popularity that could hardly have been obtained, had it not possessed many points of real excellence. It is not difficult to recognize wherein lies the particular value of the book. Though lacking in explicit details and originality, it is nevertheless a valuable text book for the student of midwifery because of its conciseness. Briefly and clearly written, it presents to the reader a comprehensive history of obstetric science to-day.

The first chapter devoted to "The Bony Pelvis and Pelvic Measurements," is particularly good, and illustrated in a way to compare with any similar work. While in that which relates to conception and generation there is such a prolific exhibition of new terms, that we are afraid the student may lose his way from an imperfect understanding of the matter. One of the best portions of the work is that part of the chapter on forceps, written by the American editor, in which he takes exception to the author's imperative instructions to lay the patient on the left side, and upholds the American method, as well as gives a description of the most popular instruments in this country.

We see here mentioned in terms of praise the forceps of E. Warren Sawyer, of this city. He also writes at considerable length on the Cæsarean operation, dystocia from tetanoid uterine constriction, and intra-venous injection of milk as a substitute for the transfusion of blood. In all of these his style of expression, as well as his plain and logical treatment of the different subjects, compare more than favorably with the corresponding parts of the same chapters written by the author, and make us almost wish that he had written more of the book. The student and the young practitioner will buy this work because it is cheap, compact and comprehensive, even though the older heads will not praise it because they find nothing new in it.

F. C. H—N.

ARTICLE XXIII.—PHYSIOLOGICAL THERAPEUTICS: A NEW THEORY. By Thomas W. Poole, M.D., M.C.P.S. Ontario: Pub. Toronto News Co.

This is a little work of 231 pages. The author has evidently read carefully and with judgment the most noted physiological and therapeutical writers; but whilst noting well the facts they record, and digesting their theories, he has not at all times coincided with them. To illustrate this statement, and at the same time to set forth the author's views in the most concise form, we cannot do better than quote direct from the introduction, four of the six general principles asserted. The burden of proof of these several principles constitute the book.

"1. The muscles and muscular tissues, generally, of the

body are endowed with an inherent contractile power of their own, independent of nervous influence; but this contractile power of the muscles is regulated for voluntary purposes through the agency of the nervous system.

"2. The influence exerted by the nervous system in its relation with muscular tissue, is that of a *restraining*, and not that of a compelling power. Nerve force, then, so far from being the ally, is the direct antagonist of muscular contractile power, and the latter displays itself to the best advantage in proportion as the influence of the former is withdrawn.

"3. Electricity is not a stimulus to nerve or muscle. On the contrary, its action is that of a sedative, anæsthetic and paralyser to nerve tissue. It is through this quality of its action that it soothes pain, whilst its tonic effects depend solely on the indirect improvement in nutrition brought about by an infinite number of contractions and relaxations of muscular fiber.

* * * * * * * * * * *

"6. Certain drugs, by modifying the activity of the vasomotor nerves (increasing their power by nutritive changes in the cells which generate nerve force, or paralysing the nerves themselves, and so arresting their functional activitity) cause an increase or diminution of the caliber of the blood-vessels, and so exert an important influence, not only over the nutrition and temperature of parts, but in controlling congestive and inflammatory processes, and so restoring normal circulatory activity."

The fourth and fifth general principles which we have omitted in the extract, are for the most part embraced in those we have quoted, but apparently put into relief in order to elucidate that part of the subject more fully. We should scarcely be granted space enough to review extensively the line of argument which our author adopts. Suffice it to say that he quotes frequently from Drs. Carpenter, Anstie, Beard and Rockwell, B. W. Richardson, Ringer, Kuss, Klein and numerous others, in order to show the contradictions to which writers are driven in endeavoring to explain the *modus operandi* of electricity and drugs on what may be called the orthodox theory.

The theory which the author suggests, is certainly simple, and it is our opinion that he has succeeded well so far as he has gone

in supporting the theory. The style is clear, and whilst it sometimes appears that a repetition frequently occurs, it is really only in appearance. We sincerely recommend the work to all who seek for an intelligent understanding of the modus operandi of the instruments they wield. In prospect of a second edition, we would recommend to the author the "Journal of Physiology," published in England. A thorough study of the experiments so carefully detailed therein, will enable him either to correct himself, or to convince others; perhaps a little of both.

The publishers have scarcely done the author justice.

R. T.

BOOKS AND PAMPHLETS RECEIVED.

Epitome of Skin Diseases, with Formulæ for Students and Practitioners. By Tilbury Fox, M.D., F.R.C.P., and T. C. Fox, M.B., B.A. Sec. Amer. Ed. Cl., pp. 216. Phil.: H. C. Lea; Chic.: Jansen, McClurg & Co.

Lectures on Practical Surgery. By H. H. Toland, M.D. Sec. Ed. Illustrated. Cl., pp. 520. 1879. Phil.: Lindsay & Blakiston. Chic.: Jansen, McClurg & Co.

The National Dispensatory. By Alfred Stillé, M.D., etc., and J. W. Maisch, PH. D. Leather, pp. 1628, 1879. Phil.: H. C. Lea; Chic.: Jansen, McClurg & Co.

A Clinical Treatise on the Diseases of the Liver. By Dr. F. Theo. Frerichs. In 3 vols. Vol. I. Translated by Ch. Murchison, M.D. Cl., pp. 224. 1879. New York: W. Wood & Co.; Chicago: W. T. Keener.

The Diseases of Live Stock and Their Most Efficient Remedies. By Lloyd V. Tellor. M.D. Cl., pp. 469. 1879. Phil.: D. G. Brinton.

Physiological Therapeutics—A New Theory. By Thos. W. Poole, M.D., M.P.C.S., Ont. Cl. Toronto: Toronto News Co.

A Manual of the Examination of the Eyes. By Dr. E. Landolt. Translated by Swan M. Burnett, M.D. Cl., pp. 307. 1879. Phil.: D. G. Brinton.

The Principles and Practice of Gynæcology. By Thos. Addis Emmet, M.D., etc.; 100 illustrations. Cp., pp. 855. 1879. Phil.: H. C. Lea.

Pathological Report of Montreal General Hospital, 1876–7. Montreal: Dawson Bros.

A Treatise on the Diseases of Infancy and Childhood. By J. Lewis Smith, M.D., etc. Fourth Ed., thoroughly revised. Cp. 8vo, pp. 758. 1879. Phil.: H. C. Lea.

A Guide to the Qualitative and Quantitative Analysis of Urine, designed for Physicians, Chemists and Pharmacists. By Dr. G. Neubauer. (Translation.) Revised by Ed. S. Wood, M.D. Leather, pp. 551. New York: W. Wood & Co.

Report of the U. S. Marine Hospital Service, 1876–7. Cl., pp. 213. 1878.

Address delivered before the American Academy of Dental Sciences at their Eleventh Annual Meeting held at Boston, Oct. 30, 1878. By Chas. M. Eliot, LL.D.

Oyster Shuckers' Corneitis. Reprint from *Virginia Medical Monthly*, Feb., 1879. By W. J. McDowell, M.D.

Influences of Altitudes on Consumptives. By J. Hilgard Tyndale, M.D. Reprint from *St. Louis Courier of Medicine.*

Valedictory Address to the Graduating Class of Jefferson Medical College at the Fifty-fourth Annual Commencement, delivered in the Academy of Music, March 12, 1879. By J. A. Meiggs.

The Causes of Sudden Death of Puerperal Women. An Address in Obstetrics and Diseases of Women and Children, delivered before the American Med. Ass'n, June 5, 1878.

Opium as a Tonic and Alterative and its Hypodermic Use in the Debility and Amaurosis Sometimes Consequent upon Onanism. By B. A. Pope, M.D.

The Treatment of Dropsy of the Gall Bladder by Operation (Cholocystotomy), with Notes of a Successful Case. By G. Brown, M.R.C.S., L.S.A. Reprint from *British Med. Journal.*

A Letter to Thomas P. Rogers, of the Twenty-eighth Representative District, in the Thirty-first General Assembly of the State of Illinois. By Andrew McFarlane, M.D.

Constitution and List of Members of the American Public Health Association.

Maternal Impressions; Mothers' Marks. An Exposé of a Popular Fallacy. By Roswell A. Park, A.M., M.D. Rep. from *Southern Clinic*, Feb.. 1879.

The Etiology and Pathology of Chronic Joint Disease. By Newton M. Shaffer, M.D. (Series of American Clinical Lectures. Edited by E. C. Seguin.

Translations.

ARTICLE XXIV.

COCCOBACTERIA SEPTICA. OBSERVATIONS MADE BY DRS. TH. BILLROTH AND F. EHRLICH. (*Archiv. für Klinische Chirurgie.* Vol 20th, part 2d.) Translated from the German by J. W. DAL, M. D.

Observations concerning the occurrence, further development, and course of coccos vegetations in completely closed abscesses.

I have for more than a decade, advanced the opinion, and endeavored to confirm the same, by my clinical experience, that the wounded always infect themselves from their wounds, resulting either in febrile or pyemic action, as the case may be, and that therefore, above all things, wounds must be treated very carefully, especially protected from irritation and infection. It is to be hoped that from the following observations, I shall not be accused of underestimating the dangerous causes which may act upon wounds from without. I have also in my work upon coccobacteria, shown clearly enough, that these little vegetations can carry within or affix to themselves, inflammatory or any other variety of infectious ferments, and because of their ubiquity, and especially their rapid propagation, in badly ventilated rooms provided for the wounded, become the most dangerous carriers of those ferments. Frisch* has proven through his extensive investigations, that the taking of inflammatory and infectious matter from decaying fluids and inflammatory products, by inoculation, was induced solely through the vegetation of cocci, because the inoculation of inflammatory products and decaying fluids

* Experimental studies on the spreading of decaying organisms in the tissues, etc., Dr. Frisch, Erlangen, 1874.

free from cocci produced no action upon the cornea. With reference to practical surgery, these observations are quite sufficient to make it an imperative duty to secure the utmost cleanliness in the bandages and sick wards, as for practical purposes it is of little importance, whether the infectious material is inseparably adherent to these algae or is produced during their vegetation.

Many interesting problems remain to be solved in this direction, in the interests of science. Frisch has shown that coccos can vegetate a certain time (forming a star shaped figure), without causing inflammation, the cocci disappear, or fall out, the slight defect being replaced in a remarkably short time, without being accompanied by keratitis; from this I draw the following conclusions: among other things it is evident, that it is not the chemical or vital act itself, which causes the inflammation or phlogistic zymosis.

I arrived — basing my opinion upon purely morphological grounds—at the conclusion, that all coccobacteria vegetations which to us appear alike, do really belong to the same species of plants, that the difference of their action would depend on whether they had previously vegetated in nutritive fluids, which contained septic or phlogistic ferments or in innoxious or indifferent fluids. Different generations of coccobacteria vegetations would, according to this view, be at times entirely harmless, at other times excessively virulent, provided their germs be developed in a tissue. As an illustration, I will mention the following experiment: the eye of a rabbit will suppurate under all conditions, if a thread be drawn through the same, and permitted to remain. In the pus, coccos vegetations will always be established.

No one will maintain that it is not the thread, but the coccobacteria vegetations which, in this instance, is the causative element in the suppuration of this bulb. Inoculation, with this pus upon the healthy cornea of a rabbit, causes, by means of these coccos vegetations, intense keratitis and conjunctivitis; perhaps, also, panophthalmia, followed by phthisis bulbi. From this I conclude that every coccos vegetation found in decomposing pus assumes infectious properties. In other words, that coccos vegetations only then become infectious when they themselves have

been infected. It would be an important argument favorable to this view were it possible to disinfect coccos vegetations that have proven their infectious qualities without thereby disturbing their vegetative power, and then again to render them infectious by carrying to them certain kinds of matter. It is to be regretted that our methods of investigation have not yet advanced far enough; it can, therefore, not be denied for the present, that we are entitled to assume different species, according to the chemical action which takes place during the presence of vegetating coccobacteria in tissue fluids and secretions. It must also be admitted that on account of the small size of the object, we are not able, even with our best instruments, to notice any morphological differences between them.

Whether there do exist coccobacteria, which are pathogenic and remain pathogenic, or whether the different species of coccobacteria under certain circumstances are more or less alike, and then in turn become indifferent (perhaps simulating the mucorin spores, which at times become active ferments, while spores of the same vegetation may develop into ordinary mold, but these latter spores may in turn again become a ferment) this it is at present impossible to decide. We can only declare ourselves in favor of one or the other theory, on the ground of possible probabilities and analogy; or we must carry our observations into the fields of purely theoretical medicine or metaphysics, believing either the one or the other.

As certain as it appears to me from the investigations before me, that the taking of infectious materials in wounds from the outside, is mainly transmitted through these coccos vegetations, so important it appears to me to admit without farther comment, that those tissue changes which occur (according to the vulgar idea, decomposition with formation of odorous products) during acute inflammation and decay, are only brought about by the vegetative action of coccos, or through a ferment which they alone can transmit.

Even though we have, through the terms "odorless," "smelling," "foul smelling secretions," etc., provided for our perception, yet it must be evident that all these terms tell us nothing about the composition of these secretions, whether they be phlo-

gistic, pyogenous or other varieties of ferments or fermentation products. It has been sufficiently demonstrated that the small quantities of strongly odorous bodies as sulphuretted hydrogen, butyric acid, ammonia, etc., which are found in the secretions, though they certainly are not entirely harmless to the tissues and blood, neither alone nor in combination possess the terribly poisonous action which appears to be fermentative and which at times is developed by these secretions.

It may be looked upon as pretty well established that the phlogistic and putrid ferment and poison is an odorless body; hence, we draw the conclusion that because its development is often accompanied by the production of odorous bodies, that the first are there also where the latter appear, without being able to exclude their existence, where our sense of smell can detect nothing. Paradoxical as this may seem to the laity, it would be wholly unwarrantable, according to past experiences, to assert that it is possible to diagnosticate the presence of pathogenic or septogenic ferments by the sense of smell.

If it were possible to smell the poison of typhus, intermittent fevers and cholera, we should indeed give them a wide berth. The ferments in question are probably all odorless; whether the products of their action smell, is entirely a secondary question, according to a scientific view, and it depends on numerous circumstances sometimes entirely irrelevant, such as for instance the formation of the *fleur de vin*, which takes place entirely independent of the formation of alcohol and the process of fermentation.

When we designate the history of a wound as aseptic, we mean thereby that the secretions of the wound are odorless. Most wounds show no sign of inflammation during this course, and there are but few, if any, coccobacteria found in the secretions. The wounded have no fever, or at least it is very slight; and yet a wound may heal without inflammation or odorous secretions, but it may contain many coccobacteria, with a high degree of fever.

It follows, therefore, that coccobacteria vegetations, odorous secretions and fever do not always occur at the same time, viz., that one is not directly dependent upon the other.

Inflammatory and traumatic fevers arise, according to my hypothesis, from the resorption of degenerating or decaying products from the inflamed and injured tissues, and through their direct or indirect action upon the blood and nervous system; whether or not these decaying products smell, can prove nothing for or against my views. A long time ago I called attention to the fact, that if wounds be treated freely exposed, the secretious will mostly be odorless. According to the popular acceptation, this is the aseptic method par excellence. That the same results are obtained by Lister's method, that the same in truth may be utilized in a much greater degree than at present, I regard as an established fact. Notwithstanding this, there is an error somewhere in the physio-pathological establishment of Lister's method of treating wounds, which, however, cannot be looked upon as a reproof.

It has happened not only to the old alchemists, but to many of our most accurate modern observers, that during their investigations they have found something entirely different, perhaps indeed practically better than that which they theoretically sought for. The throwing together of botanical, chemical and clinical investigations in such a manner that an accidental discovery shall at once explain or refute everything in all directions, has brought about a state of unpleasant restlessness and bittter animosity in the discussion of the observations themselves, to establish and understand the connection of which must be our constant aim, without thereby laying aside our sensible scientific resignation to live for the present with questions which we can but try to solve, to work, to teach, and treat our wounded. As upon other domains of science we can only conquer step by step the domain of knowledge, and nobody is therefore free from error.

I have in these preliminary remarks defined my position with reference to the bacteria, septic, and Lister questions, which has not been altered by any of the late investigations, although much of that which I formerly observed and communicated, may be otherwise construed, and many of my hypotheses fall or must be modified. The following investigations furnish, probably, verifying rather than new facts; yet, they will serve to show my continued interest in the most important question of the day. There are certain parts of these researches which imperatively demand

clinical material, and to these I wish to add a few contributions although they raise more new issues than they can solve.

It has always appeared to me of paramount importance to know whether coccobacteria vegetations occur in completely closed abcesses. If this be the case, it appears to me proven (excluding the *generatio æquivoca*) that through the respiratory organs, or the alimentary canal, germs enter into the blood, that there they retain their vitality for a certain time at least, and only require to be brought under circumstances favoring their development, in order to vegetate. That this vegetation is feeble and not of long duration, is to be expected *a priori*, because plants as a rule only employ gas for their nourishment, which exists free or absorbed in fluids, they not being able to decompose organic and inorganic compounds such as water; and furthermore, plants as well as animals, perish in their excretion products.

It follows, therefore, that the coccobacteria vegetations cannot be expected to develop luxuriantly if their excretion products cannot be removed. It is usually assumed that they chiefly consume oxygen, but this is by no means certain; perhaps they chiefly require carbonic acid gas, if they are to flourish luxuriantly, certain it is that they demand, besides the introgenous compounds or carbonic hydrates, certain other component parts of the air.

We will, for convenience sake, divide the cases in which coccobacteria occur within closed abcesses, into primary and secondary or metastatic abcesses.

I. *Cases of coccobacteria vegetations in primary subcutaneous inflammatory abcesses.*—In my former work (Coccobacteria, p. 89) I cited two cases: Micro-coccos chains in a suppurating blood extravasation on the lower third of the thigh; and in an abcess which had formed about an anchylosed elbow joint in which forced action had been employed to render it movable.

I can add to these, two more very similar ones, with widely varying results.

Anna Schlosser, æt. 59. After she had scrubbed floors for several days, an acute præpatellar abscess formed on the left knee, and for this she was brought to the hospital, on the 10th day after the beginning of the inflammation. The abscess was

punctured, giving exit to odorless, slimy, viscid pus, which contained moderate quantities of plainly marked though latent micro-coccos chains.

Barbara Dolcher, æt. 23, a strong, well developed servant girl, had, on the 3rd of December, 1875, scrubbed the floor with much exertion; in the night of the 8th of December, she became ill, having a severe pain in the region of the left knee, was feverish, and unable to walk or attend to her work. In a very short time a præpatellar inflammation developed, spreading rapidly upwards and downwards from the knee. On the 14th of December she was brought to the clinic; she already made the impression of being intensely septically infected; the inflammation spread rapidly to the foot and hip, no trace of an injury being observable. On the 15th of December two incisions were made (at the patella and on the outer aspect of the thigh) giving exit to clotted blood mixed with ichorous but not very offensive pus, containing large quantities of latent micro-coccos chains. The phlegmonous dermatitis had, on certain portions of its sharply defined borders, a clearly marked redness, indicating its erysipelatous character; immediately above the heel a blister had formed, filled with bloody serum, which was full of latent strepto-coccos. The patient died on the 16th of December. At the autopsy the joints and bones of the left extremity were found to be healthy; otherwise no evidence of local disease was found. Death was evidently caused by septicæmia without any farther localization. From the autopsy report, with the exception of the lower extremities, nothing pathological could be discerned. About the result of the microscopical investigations of the liver and kidneys we shall report later.

All these cases have this in common viz: that the inflammation occurred after mechanical injury; that, therefore, a primary excitation of the inflammatory process through micro-coccos vegetations could not be thought of; in all the cases there were found only latent strepto- and micro-coccos in the pus, varying in quantity. In two cases the pus had an ichorous appearance, but was odorless only in the one case, and in two cases the pus was entirely odorless.

The different abscesses required from six to fourteen days for

their development. They were soon circumscribed, and in the last case, (Dolcher) only, we had to deal with an acutely progressive case, and only this one proved fatal. Ignoring the *generatio æquivoca*, it can only be assumed that coccos germs capable of vegetation were existing within the body, and that they developed in the site of the inflammation caused by an injury, probably because the pathological conditions especially favored their development at that point.

That the course of the disease was very mild in three of the cases mentioned, and exceptionally rapid in one of them, is somewhat difficult to understand.

The kind and degree of the injury, defective nursing, and improper treatment at the beginning of the disease, causes or conditions which usually serve to explain the difference in the result, cannot here be adduced. We are therefore left to the indefinable individual disposition to inflammations, if we do not wish to accept the modern but badly muddled theory of the different actions of the different varieties of micro-organisms, according to which man must carry within himself all kinds of micro-organisms in his tissues or blood, and when just those happen to vegetate that carry with them intensely inflammatory ferments, these would cause in the seat of irritation a serious progressive inflammation. This would compel us to assume again that it is not the vital vegetative act of the micro-organisms in question, that produces the ferment, but that there are only certain morphological not discernable organisms that do this, or to which the ferment in question is inseparably attached.

II. *Cases of coccobacteria vegetations in closed abscesses, in which there had existed a continuity with open wounds.* Under this heading belong several cases, which I have already communicated, of coccos in an abscess of the lymphatic glands of the neck after extirpation of the lip, etc. (Coccobacteria p. 89).

The last observation I made, was upon a boy æt. 14, June, 1874; also the following case belongs here. A man æt. 23, was operated upon for strangulated hernia. Three days after the operation the left half of the scrotum began to swell; the swelling increased rapidly, fluctuated distinctly, was completely isolated, could not be emptied even upon strong pressure until the

original wound was punctured with a fine trocar. Five days after the first operation, it gave exit to about 8 grams of a yellowish clear odorless serum, and a few drops of pus. This fluid contained a few free medium-sized coccos and strepto-coccos, and was particularly infectious.

In all these cases the secretions were odorless, and there were always found only latent micro- and strepto-coccos; these organisms had gained entrance through the external wound, and from there entered the lymphatic circulation, and through it into the cellular tissue and lymphatic glands, and they carried with themselves infectious materials, and so aided the progress of the inflammation. We may, however, assume that an irritative lifeless ferment called forth the inflammation, and that the micro-organisms were accidentally developed just as in the primary sites of inflammation. This would be equally plausible.

The first hypothesis assumes a certain duration of the vegetative powers of these organisms in the living flowing lymph, which is verified by analagous experiences under different circumstances, and can therefore no longer be denied.

III. *Cases of coccobacteria vegetations in closed metastatic abcesses observed on the diseased.* New observations.

Carl Pash, æt. 23, injured himself four weeks before his reception (June 3, 1874), with a splinter of glass in the middle finger of the right hand; there was enormous inflammation and gangrene of the finger; the phlegmon extended up to the shoulder, suppurating already. The pus contained latent micro- and strepto-coccos in large quantities. On the 12th of July there occurred a swelling on the right natis, on a spot of which the patient had complained several days before; on the 13th evident fluctuation, a large quantity of foul smelling pus was drawn off that contained great quantities of free coccos and strepto-coccos; eight days later the pus which was discharged in small quantities contained only traces of coccos.

Haar Jacob, æt. 52. A medium sized hard calculus; urine, acid; slight cystitis; performed lithotripsy: first successful sitting on January 22d, 1876, no reaction. Second sitting January 24th; on the day following sudden severe pain during an attempt at micturition, severe hæmaturia, that persisted for a long time in

spite of cold injections, and weakened the patient very much; (probably in consequenee of a plugging up by a sharp fragment) swelling of the corpora cavernosa, œdema of the prepuce, rapid development of an acute diphtheritic cystitis; on the following day the urine, ammoniacal, containing many coccos elements; following this, œdema of the scrotum, partial gangrene of the same. Ammonemia on the 3d of February; pain and then swelling of the right knee joint which was filled with pus, drawn off with the aspirator on the morning of the 8th of February. Exitus letalis on the evening of the same day. The extracted pus was thick yellowish and odorless, and contained great quantities of latent micro- and strepto-coccos.

Josef Kunz, æt. 6, received to be operated upon for eversion of the bladder and epispadias. Through repeated operations the bladder had been already closed, and the upper part of the penis and glans had become united. After the transposition of the prepuce upwards on the 23rd of June, the middle portion of the well-stitched prepuce became gangrenous; during the following days urinous diphtheria, alkaline bloody urine; on the 26th of June pain and swelling of the left knee joint. The joint was soon rendered tense by the accumulation of pus. On the 27th, puncture by means of the aspirator, gave exit to an odorless serous fluid, with a few flakes of pus, which contained great quantities of latent strepto-coccos coiled upon themselves. The fluid rapidly accumulated again; on the 5th of July, by means of puncture, thick, yellow, odorless pus, without micro-organisms was withdrawn, but the pus cells had a peculiar strongly marked granular appearance. Renewed accumulation; punctured July 10th; no trace of coccos; the pus cells degenerating, accumulated again; punctured with drainage July 24th. The pus was entirely free from coccos, and odorless; during the meantime the wound on the penis improved, becoming clean and granulating freely. The urinary diphtheria had passed away; urine, acid. During the time intervening between the 26th of June and the 5th of July, drops of blood drawn from the finger were repeatedly examined, but no clearly marked coccos, in fact not even a trace was found. The patient recovered; his joint was restored to normal mobility.

These investigations, it appears to me, offer much of interest. In all these four cases the metastatic disease could not well be be traced to blood clot, embolic from the primary inflammatory site containing coccos; therefore, it might seem questionable whether the vegetations in the metastatic abscesses were derived from those in the primary site of inflammation. We might assume that the coccos which are present in the pyæmically affected individual (as also in the healthy individual) readily vegetate, and that, therefore, there is no ætiological connection between the coccos in the wound and those in the metastatic abscess; that the coccos there as here is only an accidental addition to the disease itself. As important as they are to the poisoning of the secretions by acccidental or intentional inoculations, I incline to this view because of the cases already mentioned and others analogous.

If we desire to place the coccos in the primary abscess in direct (genetic) connection with the coccos in the metastatic abscess, then their transport was, even though it perhaps was begun by the tissue fluids, effected by means of the blood circulation. This would, as already indicated, imply a certain viability of the coccos in the circulating blood, but it would by no means prove that the eventual stopping of the coccos, for instance in the synovial membrane of the kneejoint, had caused the metastatic abscess. This might have originated from some other cause, simply offering an advantageous field for the development of the coccos as they were passing by.

Adopting either one of these hypotheses we come to another curious phenomenon. Were the coccos the carriers or the cause of the diphtheritic process in the two last mentioned cases (as has been assumed by many, and as I admit is possible from the experience obtained by its transmission to wounds after inoculations) then the passing cocci on their way to the knee joint lost their infectious diphtheritic character, because the pus in the knee joint was neither decomposing nor foul smelling; the process in the synovial membrane had a purely catarrhal blennorrhaghic character; there was no diphtheritic process; there followed in the last case *restitutio ad integrum.* I am not able to solve this enigma. As a positive, and as it appears to me, an important result of the observations, I call attention to the different results

from the examination of the fluids extracted from the last case (Josef Kunz). In the, at first, serous secretions immense quantities of coccos were found, at the same time presenting no sign of decomposition; the more pus was formed the less coccos vegetations were found, at last disappearing altogether, the knee joint became normal again, the pus offered no peculiarity whatever to sight and smell.

That the coccos also disappeared in the ichorous pus, I have repeatedly called attention to. It appears to me that the cocci then decay when they have utilized the absorbed gases which the fluids contain; whether they have the power to decompose albuminoid bodies, still remains an hypothesis, notwithstanding assurances to the contrary, since the decomposition might occur without their presence.

The luxuriating coccos is therefore, when in the tissues of the body, confined to certain primary stages of the inflammatory process, they are destroyed by the rapid formation of pus. When, therefore, we find no coccos in ripened abscesses, we cannot say there never were any there. We can therefore not make any far reaching conclusions with regard to their action or their being the causative element in closed abscesses.

If these few experiments do not prove much, they at least agree completely with observations made during former experiments, that the secretions derived from the earlier period of an inflammation are phlogistically more irritating than those of later periods, and that the action of the coccos vegetations does not depend upon the mechanical influence, which they exert upon the tissues, nor upon the vital act of their vegetation, but upon this question, viz, whether or not they carry irritative materials with them into the tissues.

COMPOSITION OF PANCREATIC JUICE.—Defresne (*Rep. de Pharmacie*) has separated three different ferments from the pancreatic juice, each of which has different properties: *Amylopsine* converts starch into sugar; *Steapsine* splits up the fatty substances; *Myopsine* dissolves albumen.

Summary.

Collaborators:

DR. H. GRADLE, DR. L. W. CASE, DR. R. PARK,
DR. R. TILLEY, DR. D. R. BROWER.

SURGERY.

CASE OF TETANUS CURED BY HYPODERMIC INJECTIONS OF MORPHIA AND ENEMAS OF HYDRATE OF CHLORAL.—(*Journ. de Méd.*, January, 1879.)

The patient entered Necker hospital, in the service of M. Broca, July 19, 1878. She had a voluminous osteo-sarcoma of the upper extremity of the right humerus, which began to show itself four months since. July 24, disarticulation of the shoulder, justified by the state of the bone. Cotton dressing. The dressing not being well supported, Dr. Monod, who took M. Broca's place, August 1, substituted the antiseptic dressing of Lister; wound in perfectly good condition. The first symptoms of tetanus appeared August 12. Patient complained of sore throat, but nothing peculiar was seen on examining the pharynx and tonsils. Jaws slightly closed; some pain on pressing over tonsils, but especially excited when patient swallows. While dressing the wound in the evening patient had a chill. From this time the following treatment was instituted in anticipation of tetanus, of which these appeared to be the first symptoms. An enema containing 4 gms. of hydrate of chloral was given at nignt, and hypodermic injections of morphine during the day. During the treatment which lasted a month, there was persistence of the contraction of the masseter and pharyngeal muscles of variable degree; two or three times the muscles of the back of the neck

presented slight contracture, and once those of the back became sensible. Morphine was given according to the indications in these changes. An exaggerated sensibility of the wound, and even proud flesh, was seen during the course of these accidents. The digestive functions were not disturbed, the patient being supported with liquid or finely divided food. The patient was kept in a nearly continuous sleep for nearly a month, the morphine being given not regularly, but as indicated. The temperature never was above 38°6. The cure was complete. Two months after there was a recurrence of the tumor.

DERMATOLOGY.

CHRYSOPHANIC ACID IN PSORIASIS. Neumann.—(*L' Union Médicale*, Feb 8, 1879.)

Chrysophanic acid	6
Prepared lard	30

Mix.

The ointment is spread upon lint, or if the skin is infiltrated, on strips of cloth, which are then applied to the diseased patches. After three or four dressings the scales disappear, and the subjacent skin is perfectly white, but in a few days resumes its natural aspect. When the psoriasis is accompanied by excessive infiltration, ten or twelve applications are necessary. For herpes tonsurans and pityriasis versicolor, three inunctions are generally sufficient; but it is for psoriasis that chrysophanic acid has proved the most efficacious. Unfortunately, the cure is not radical, and the eruption may reappear later. Chrysophanic acid should not be applied to the face except with reserve, on account of the change of color which it may cause in the skin and hair. It has, besides the inconvenience of staining the linen. Ointment of much less strength may be sufficiently active to fulfill all the indications.

THERAPEUTICS.

A NEW DISINFECTANT.—(*Lyon Médical.*)

Under this title Dr. John Day, of Australia, recommends (*Alger Médical*) for use in general hospitals and for destroying

contagion germs, a mixture of one part of rectified essence of turpentine and seven parts of benzine, with five drops of essence of verbena to the ounce of the mixture. Its disinfectant properties are due to its capability of absorbing oxygen and converting it into ozone. Furniture, clothing, books, etc., can be disinfected with it without injury, and whether it be applied to a porous or non-absorbing surface, its action persists indefinitely. It can be applied with a sponge or brush, or an object be immersed in it. One can convince himself of its vigor of action at any time by dropping some solution of iodide of potassium on the substances thus treated; decomposition of the salt occurs in the presence of ozone, and the characteristics of free iodine are easily recognized.

OBSTINATE CASE OF HICCOUGH CURED BY THE PASSAGE OF AN ŒSOPHAGEAL SOUND. By Dr. E. Barré. (*L'Union Médicale*, March 17, 1879.)

V. B., employed in a bank. Age 45. Excitable temperament. Lost a little girl, January, 1876, from tubercular meningitis. Emotion brought on a continual and insupportable hiccough. Consulted a physician, and by the use of ether and bromide of potassium obtained relief, only to be again subject to the same annoyance. The ether, bromides and morphia no longer gave him relief. A second physician was consulted, with only a slight relief.

Wearied, he resorted to a herbalist; obtained no result. Then went to *l'Hôpital Lariboisière*. Followed directions faithfully, without relief.

His general health now became seriously affected by the continual disturbance.

On November 6, 1878, he went to consult Dr. Barré. He administered medicine, the chief ingredient of which was chloroform. This failed completely.

A general course of tonics was tried, with no success. On the 12th of January, the patient repeated his visit to Dr. B., and manifested greater discouragement than ever. The doctor confesses that he himself was not less discouraged. He tried compression, without effect. Just then his eyes alighted on an

œsophageal sound which lay upon his desk. Without much thought he passed the sound into the œsophagus; he does not say how far. Immediately his patient fainted. The sound was quickly withdrawn, and efforts directed to his revival. Dr. B. reproached himself for having resorted so thoughtlessly to such a measure, but was encouraged on the appearance of his patient the next day, with the assurance that he had only experienced three slight attacks since the former operation. The physician introduced the sound again, this time without any inconvenience, and at the time of writing, thirty-seven days after, no return of the hiccough had manifested itself.

A HIGHLY VASCULAR NÆVUS TREATED BY INTERSTITIAL INJECTION OF A 15 PER CENT. SOLUTION OF CANTHARIDINE IN CHLOROFORM.

On Sept. 21st, 1878, a child was brought to the Hôpital Saint Antoine, bearing in the inguinal region a prominent nævus of bright red color, the size of a large hazel nut, from which, from time to time, slight hæmorrhages took place, which led its mother to seek a cure of the little tumor. On the 22d there was injected half a gram of the solution, containing seven and a half miligrams of cantharidine; at the moment the child cried, but in half an hour was quiet. Two hours after it complained of smarting and pain in the tumor; three hours after a congestive zone around the nævus; twelve hours after a vesicle, and in twenty-four hours an eschar, which enlarged the following days; fourth day eschar very distinct, and several small vesicles in the healthy skin around the nævus. About the twelfth day eschar completely formed and, on the twentieth, commencement of line of separation on a level with healthy skin, for the eschar was not exactly limited to the tumor. One month after, eschar on the point of falling, and in two months there remained a slight wound, with tendency to heal; two and a half months after, the cicatrization was complete, with tendency to diminish; finally, three months after, there remained but a superficial scar, without any appearance of the vascular tumor.

CONCERNING PLUMBIC NITRATE.—(*Med. & Surg. Reporter.*)

Dr. Marsh, of Louisiana, some years ago called attention to the great value of plumbic nitrate in many skin affections and erosions. Recently, an Italian, Dr. Galletti, has added his testimony as to its merits. He states that he has cured three cases of epithelioma by dusting the powder over the affected part; recovery taking place after four or five applications. Two obstinate ulcers of the foot which had proved rebellious to other treatment quickly recovered after similar applications. Dr. Vanzetti has recently recommended the use of this salt, also, in onychia maligna.

CHLORAL AS A REVULSIVE.—(*Bulletin de Therap.*)

Dr. Peyraud states that chloral made into a mass with tragacanth, spread on paper or cloth, and applied to the skin, will produce a blister without pain. Applied as a powder on cotton it causes burning pain. By the former method a portion is absorbed and sleep produced. Its action is not quite as certain as that of cantharides, but as a mild revulsive and agreeable vesicant its action is very agreeable.

THE Annual Commencement of the Medical Department of the State University of Iowa, took place at Iowa City, on the evening of March 5th, 1879, at which fifteen candidates received the degree of Doctor of Medicine. The degrees were conferred by his excellency Gov. John H. Gear, President of the Board of Regents. The faculty address was delivered by the President of the University, J. L. Pickard. The class valedictory was delivered by Fred. H. Little, of Muscatine. This occasion closed the third year of operation in the department, of the "three years graduated course" of study, and a thorough revision of the plan of this course, with the addition of a preliminary examination of applicants for matriculation, are the steps in advance announced for next session.

Items.

"CALIFORNIA'S LAST, BEST GIFTS."—It is well known to most of our readers that one Dr. Bundy, of California, has been foisting upon the market, with the aid of a certain journal devoted to bringing before the public the products of a manufacturing firm, numerous *new preparations* of non-officinal drugs indigenous to his own State, claiming for them remarkable properties. Some of these were introduced under their own botanical names; for others names were drawn from the Spanish vernacular or were coined for them in the same language. These have been widely advertised and favorably commented upon by various medical and pharmaceutical journals.

Among other journals, *The Philadelphia Druggist and Chemist*, having perpetrated a lot of buncome concerning them, Dr. Gibbons has thought best to correct its statements, and give a brief sketch of some of the plants, in a leading article in the *Pacific Medical and Surgical Journal* (October, 1878). We draw upon his paper for much of the following.

Yerba Santa ("Holy Herb"). Eriodyction glutinosum, a shrub growing along the coast range and its foot-hills; used extensively in domestic medicine by the Spanish population; considered of some value in pulmonary and throat affections. Has been used more or less by regular practitioners for years, although regarded as still on trial. *Not* introduced by Dr. Bundy.

Berberis Aquifolium.—One of four species of berberis or barberry found in California. In the secondary list of the U.S.P. The genus is very old, and its active principle *berberina* well known. B. pinnata is probably what Bundy uses.

Cascara Sagrada (Sp. for "Sacred Bark").—No such plant known to botanists. Dr. Gibbons received a specimen from a Cincinnati druggist which he was convinced was the article sold

as cascara sagrada, which proved to be a species of rhamnus, or buckthorn, of which four species are found in California. The properties of rhamnus are well known, and here we have an explanation of the wonderful virtues of cascara sagrada in constipation and allied difficulties. Bundy claims to be the discoverer of this remedy, known and used three hundred years before he was born.

Yerba Reuma. Bryzopyrum Spicatum (Hooker).—A grass covering the beaches and marshes along the coast. Has slightly astringent properties.

Grindelia (Compositae).—G. Robusta is a known species. G. Hirsutula has been used in rhus poisoning. G. Squarrosa was described in Torrey & Gray's botany, but in the new California flora of Dr. Gray was omitted because it was not a well-marked species. G. Robusta is probably of some value, but Bundy's cautions as to the necessity of noting the difference between the robusta and squarrosa are simply bosh.

As Dr. Gibbons says, "it is not agreeable to deal in personalities," but the truth should be known. The writer was informed months ago, by the representative of a well-known Eastern house, that this I. H. Bundy was an eclectic, not to say charlatan, and the article from which we quote, written by one who knows still more of him, only corroborates the statement. That such a man can boast of his pseudo "discoveries," of his tremendous labors connected therewith, and can dignify them with any such phrase as stands at the head of this article, is bad enough, but that his worthless writings should be given such extensive notice, and his statements be made to fall, *ex cathedra*, upon our ears, is intolerable, and we are glad to do our share of publishing the truth.

APOLLINARIS WATER.—Some of the New York papers, who, following the example of many of their most eminent European *confreres*, endorsed the dietetic value, purity and natural origin of the Apollinaris water, must have felt a little shaken in their judgment, or, at least, annoyed at the implied slur upon their accuracy by the publication and extensive advertisement

of trade attacks upon the water, which alleged that the Apollinaris water sold here in bottles is not the water of the spring, and is not charged with its natural gas. The recent publication of certificates by Oscar Liebreich. Wauklyn, Herman Weber and others, re-affirming the absolute accuracy of the claims of the Appollinaris of commerce to its title of a natural mineral water, has had a re-assuring effect; but we think that the certificates now issued and just placed in our hands will, nevertheless be valuable as setting the matter entirely at rest. It would not be possible to mention four names of greater weight on such a subject, or more sure to receive entire assent to any statements which they make, than those of Prof. Hoffman, of Berlin; the illustrious Kekule; Frankland, the leading water analyst of Great Britian; Odling, the British chemical juror at our centennial exhibition and the professor of chemistry in the University of Oxford. All four have been induced to repair to the springs to examine every detail personally, to compare the water issuing from the spring with the water of commerce, and to investigate the process of bottling. Each for himself, and in his own words, elaborately reports the result of his personal investigation, and each arrives at the same conclusion, namely, that the Apollinaris natural mineral water of commerce is the natural mineral water of the Apollinaris spring, bottled at the spring, charged only with its own gas, and with the same proportion of the gas as exists in the water at the depth at which it is drawn from the spring. The agents of the U. S. Treasury Department in Europe had been instructed from Washington to institute for themselves an independent inquiry, so as to ascertain and place the facts beyond doubt. They have done so, and have officially reported likewise to the government, that there is no foundation whatever for the charges made, and that the Apollinaris water sold here is, beyond doubt, the water of the spring, bottled on the spot and charged with its own gas. Thus the New York doctors may rest satisfied that they are justified in their generation, and that *this* "great European novelty," at all events, is what it represents itself to be.

ANNOUNCEMENTS FOR THE MONTH.

SOCIETY MEETINGS.

Chicago Medical Society—Mondays, May 5 and 19.
West Chicago Medical Society—Mondays, May 12 and 26.

CLINICS.

MONDAY.

Eye and Ear Infirmary—2 p. m., Ophthalmological, by Prof. Holmes; 3 p. m., Otological, by Prof. Jones.
Mercy Hospital—1:30 p. m., Surgical, by Prof. Andrews.
Rush Medical College—2 p. m., Dermatological and Venereal, by Prof. Hyde; 3 p. m., Medical, by Dr. Bridge.
Woman's Medical College—2 p. m., Dermatological, by Dr. Maynard.

TUESDAY.

Cook County Hospital—2 to 4 p. m., Medical and Surgical Clinics.
Mercy Hospital—1:30 p. m., Medical, by Prof. Hollister.

WEDNESDAY.

Chicago Medical College—1:30 p. m., Eye and Ear, by Prof. Jones.
Rush Medical College—3:30 to 4:30 p. m., Diseases of the Chest, by Dr. E. Fletcher Ingals.

THURSDAY.

Chicago Medical College—1:30 p. m., Medical, by Prof. Quine.
Rush Medical College—3 p. m., Diseases of the Nervous System, by Prof. Lyman.
Eye and Ear Infirmary—2 p. m., Ophthalmological, by Dr. Hotz.

FRIDAY.

Cook County Hospital—2 to 4 p. m., Medical and Surgical Clinics.
Mercy Hospital—1:30 p. m., Medical, by Prof. Davis.

SATURDAY.

Rush Medical College—2 p. m., Surgical, by Prof. Gunn.
Chicago Medical College—2 p. m., Surgical, by Prof. Isham; 3 p. m., Neurological, by Prof. Jewell.
Woman's Medical College—11 a. m., Ophthalmological, by Dr. Montgomery.

Daily Clinics, from 2 to 4 p. m., at the Central Free Dispensary, and at the South Side Dispensary.